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by

Denise Michele Carr

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**HOW ENGAGEMENT IN CURRICULAR LEARNING COMMUNITIES  
INFLUENCES THE BACCALAUREATE DEGREE ATTAINMENT  
OF CAREER AND TECHNICAL STUDENTS**

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INFLUENCES THE BACCALAUREATE DEGREE ATTAINMENT  
OF CAREER AND TECHNICAL STUDENTS**

by

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## **Dedication**

*To Rick, the love of my life, thank you for believing in me and cheering me on during this journey.*

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**HOW ENGAGEMENT IN CURRICULAR LEARNING COMMUNITIES  
INFLUENCES THE BACCALAUREATE DEGREE ATTAINMENT  
OF CAREER AND TECHNICAL STUDENTS**

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Learning communities at colleges and universities have gained popularity in recent years as a method to increase student persistence and completion. While there has been extensive quantitative research on the effectiveness of learning communities, the focus of this research has been primarily on the academic outcomes of four-year students. While research has begun to address the effectiveness of learning communities on two-year student persistence and completion, few researchers have addressed how engaging in learning communities influences the baccalaureate degree attainment of community college students, specifically, those majoring in career and technical fields. Thus, this study begins to address the need for research on institutional practices that may increase the four-year degree attainment of community college students. Three primary research questions guided this study: (1) How did engagement in a curricular learning community influence the baccalaureate degree attainment of community college career and technical graduates? (2) What specific aspects of a curricular learning community influenced graduates to complete a baccalaureate degree? (3) How did the identified aspects influence graduates' decisions to pursue a baccalaureate degree? This study utilized a



qualitative methodology with a case study design. Purposive sampling techniques were utilized to identify (1) the community college under study, and (2) the 15 career and technical graduates who participated in a curricular learning community and persisted to complete a baccalaureate degree. Participants indicated that engaging in a curricular learning community allowed them to experience high levels of student engagement, academic and social integration, and the ability to gain academic momentum, which influenced their decision to pursue a four-year degree.

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## **CHAPTER 1: INTRODUCTION**

The average age of a community college student is 29, and over two-thirds attend part-time while working and attending to familial responsibilities (American Association of Community Colleges, 2014). These characteristics have often led to high dropout rates, which contribute to the low persistence rates reported by many community colleges across the United States (National Center for Education Statistics, 2014). In an effort to improve student persistence, some community colleges have implemented practices designed to support student engagement and improve degree completion. This study examines the effect of engagement in curricular learning communities on the baccalaureate degree attainment of community college students in career and technical fields.

Chapter 1 provides an overview of curricular learning communities and a brief description of the study design, definitions, and assumptions. In addition, the demographic and educational trends of community college students are included, followed by the theoretical framework used to analyze the findings of the study.

### **Context/Rationale**

Over 12 million students, almost half of the U.S. undergraduate population is currently enrolled in credit and non-credit bearing courses at community colleges (American Association of Community Colleges, 2014). Over 36% of these students are the first members of their family to enroll in college, and are more likely to be older, minority, attend part-time, and be of a lower socioeconomic status than students pursuing post secondary education at a baccalaureate institution (McIntosh & Rouse, 2009). Community colleges serve this wide array of students by providing an open access policy, low tuition costs, and educational opportunities close to home (American Association of Community Colleges, 2014). However, researchers have found that

students with these characteristics have lower rates of persistence, and are less likely to earn a degree or credential (Planty, Provasnik, Hussar, & Snyder, 2007).

The Obama administration sees the completion of a college education as essential to American competitiveness, with our economic future dependent on the development of a highly educated workforce that can compete with other nations. At the White House Summit on Community Colleges on October 5, 2010, President Obama argued:

These are the places where young people can continue their education without taking on a lot of debt. These are the places where workers can gain new skills to move up in their careers. These are the places where anyone with a desire to learn and to grow can take a chance on a brighter future for themselves and their families...We are in a global competition to lead in the growth industries of the 21st century. And that leadership depends on a well-educated, highly skilled workforce. We know, for example, that in the coming years, jobs requiring at least an associate's degree are going to grow twice as fast as jobs that don't require college. We will not fill those jobs—or keep those jobs on our shores—without community colleges.

As national attention has increasingly focused on community colleges, so has the pressure to improve student persistence and degree completion. In an effort to improve student persistence rates, some two-year institutions have implemented learning communities to address the lagging rates of postsecondary degree attainment. In general, learning communities are groups of students simultaneously enrolled in several courses at a time, with the goal of improving retention and persistence through increased academic and social integration and engagement (Tinto, 1993). While there are several models of learning communities, this study focused on curricular learning communities. Curricular learning communities consist of students

interested in similar fields and themes of study that are co-enrolled in two or more courses (Lenning & Ebbers, 1999). This study examined how engagement in a curricular learning community influenced the baccalaureate degree attainment of community college students in career and technical fields. A number of studies have examined how institutional practices at community colleges may contribute to student persistence. The majority of studies that investigated the effect of learning communities focused on two-year degree attainment (Bailey, Calcagno, Jenkins, Kienzl, & Leinbach, 2005; Goble, Rosenbaum, & Stephan, 2008; Levin, 2008; Goldrick-Rab, 2007; McIntosh, 2012; Rini, 2010; Shugart & Romano, 2008). This study contributed to the gap that may exist in the literature by investigating how participating in curricular learning communities can affect the four-year degree attainment of community college students in career and technical fields.

### **Problem Statement**

While bachelor's degree attainment is declining in the United States for all students, it is even lower for those who begin their higher education journey at a community college (National Center for Education Statistics, 2014). Previous research has demonstrated that community college students aspiring to earn a bachelor's degree or higher persist at much lower rates when compared to four-year students (Seidman, 2012). Less than half of community college freshmen earn a two-year degree or transfer to a four-year institution within six years (Mechur-Karp, O'Gara, & Hughes, 2008). Hoachlander, Sikora, & Horn (2003) found nearly 40% of public two-year college students indicated their intention to transfer to a four-year school, though only 28% actually succeeded. Alarming, of those students who transferred, only 10% earned a bachelor's degree. In comparison, McIntosh & Rouse (2009) reported students who began college at a four-year institution were twice as likely to attain a degree or credential than their

two-year counterparts. This low rate of four-year degree attainment by community college students has contributed to the falling rate of U.S. residents earning a bachelor's degree.

According to a 2013 report published by The Organisation for Economic Cooperation and Development (OECD), the United States fell behind in bachelor's degree attainment when compared to other countries. The OECD (2013) study compared indicators and data across 37 member countries and found that despite spending 2.8% of its Gross Domestic Product on post-secondary education, higher than any other member country of the OECD, the United States ranked 12th in this category. America had 43% of 24-35 year olds with bachelor's degrees, far behind first ranked Korea, with 64% among the same age group. This lack of educational attainment comes at a considerable cost to individuals, colleges, and society as a whole.

Because 47% of community college students leave school without earning any credential, it is important to examine why transfer rates and degree attainment at these institutions remain low, and identify practices that improve these statistics (Karp, O'Gara & Hughes, 2010). Some two-year institutions have implemented learning communities in an effort to improve student persistence and completion rates. In 2003, the National Learning Communities Project published an extensive review of 119 studies relating to the effectiveness of learning communities (Taylor, 2003). The author concluded that "a preponderance of studies indicate that learning communities strengthen student retention and academic achievement" (Taylor, 2003, p. iii). However, only 32 of the 119 studies reviewed were at community colleges and only one of those met the requirements of the assessment study. Tinto (1997) performed the most well known evaluation of learning communities at community colleges. In a study conducted at Seattle Central Community College, he found that participation in a learning community increased student persistence by increasing academic and social integration.

While previous studies have found that participation in learning communities positively influenced associate degree attainment of community college students (Tinto, 1997) and bachelor's degree attainment of four-year students (Taylor, 2003), less is known about the influence of curricular learning communities on the baccalaureate degree attainment of community college students.

### **Purpose of the Study**

The purpose of this study was to examine how engaging in a curricular learning community influenced the four-year degree completion of community college students in career and technical fields, and, more specifically, what aspects of curricular learning communities contributed to student engagement and persistence to four-year degree completion. The low number of community college students that actually earn a bachelor's degree illustrated the need to examine how the characteristics of curricular learning communities can positively influence four-year degree attainment (Hoachlander, Sikora, & Horn, 2003; Mechur-Karp, O'Gara, & Hughes, 2008; Seidman, 2012). Because most research concerning the effect of learning community participation on baccalaureate degree attainment has been conducted at four-year institutions, the findings from these studies may not be applicable to community college students (Bailey & Alfonso, 2005). Therefore, this study was designed to examine a gap in understanding how learning community participation may influence the baccalaureate degree attainment of community college students, specifically those students enrolled in career and technical fields.

### **Research Questions**

To further understand how learning communities influenced the baccalaureate degree attainment of community college students, this study sought to answer three research questions utilizing qualitative research methods:

1. How did engagement in a curricular learning community influence the baccalaureate degree attainment of community college career and technical graduates?
2. What specific aspects of a curricular learning community influenced graduates to complete a baccalaureate degree?
3. How did the identified aspects influence graduates' decisions to pursue a baccalaureate degree?

This study answered these questions by examining the perceptions of graduates of a curricular learning community at Pellissippi State Community College (PSCC) located in Knoxville, Tennessee. Three criteria were used to select the institution for this study. The institution a) had a curricular learning community that had been established for more than four years; b) had a majority of students enrolled in the curricular learning community complete a two-year degree; and c) had at least 15 graduates from the curricular learning community complete a baccalaureate degree. As the first and only institution in Tennessee to meet these three criteria, PSCC was an ideal choice for the purpose of this study.

### **Brief Overview of the Methodology**

This study was conducted using qualitative methodology and utilized a case study design. Data collection was gathered primarily from semi-structured interviews with 15 curricular learning community graduates, and the review of graduate exit surveys. While other community colleges utilize learning communities as a strategy to improve student persistence (Kolenovic, Linderman, & Karp, 2013; Rini, 2010; Taylor, 2003), the participants for this study were selected based on purposeful sampling. Purposeful sampling, the most common type of nonprobability sampling used by qualitative researchers, was appropriate for gathering the most information from interviewing or observing a particular group (Merriam, 2009). This qualitative

case study provided a strategic case to build theory surrounding Tinto's (1975, 1987, 1993, & 1997) integration framework and Kuh's (2000, 2006; Zhao & Kuh, 2004) theory of student engagement. The theoretical models developed by Tinto and Kuh have assisted researchers for decades in understanding the concepts of student persistence and engagement.

Tinto's (1993) model posited that a person's decision to leave an institution was the result of a longitudinal process consisting of academic and social interactions between the individual and members of the institutional system. Tinto argued that students modified their intentions and commitments based on their experiences with the social and academic systems. As students became more academically and socially integrated with the institution, the more likely they would be to persist.

One primary way in which students can be more integrated into the academic and social college environment is to engage in purposeful educational activities and programs (Kuh, 2001). According to Kuh (2001), engagement combines individual student behavior with institutional practices designed to foster a desire by students to participate in such behaviors. Because the institution is responsible for establishing practices that encourage student participation and the student must make the decision to actually participate in such practices, engagement becomes a shared responsibility between the student and the institution. Student engagement, along with the institutional practices that promote it, has been found to have a positive association with student learning and persistence (Kuh, 2003; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Kuh, Kinzie, Cruce, Shoup, & Gonyea, 2007; Pascarella & Terenzini, 2005; Zhao & Kuh, 2004). Intentionally providing opportunities for engagement at community colleges is particularly important because commuter students have limited time on campus to interact with peers and faculty.



## **Definition of Terms**

The following terms are defined for the purpose of this study.

Attainment	A student completes a program and receives a credential (e.g. certificate, associate's degree, etc.) (Berkner, Horn, Clune, & Carroll, 2000).
Career and Technical Education	Two-year educational programs that specialize in the skilled trades, applied sciences, modern technologies, and career preparation. (The Glossary of Education Reform, 2014).
Curricular Learning Communities	A group of students who co-register in two or more linked courses with increased collaboration and partnerships to foster shared knowledge, shared knowing, and shared responsibility (Smith, MacGregor, Matthews, & Gabelnick, 1997; Tinto, 1997).
Dropout	A student who leaves the institution without completing a program and never returns for additional study (Beal & Noel, 1980).
Engagement	The time and energy a student devotes to educationally purposeful activities, in and

out of the classroom, and the policies and practices college/universities use to induce students to participate in these activities (Kuh, 2003).

#### Persistence

A student has continued anywhere in postsecondary education, including transferring from one institution to another (Berkner et al., 2000).

#### Retention

A measure of the rate at which students persist in their educational program at an institution, expressed as a percentage (National Center for Education Statistics, 2015).

### **Delimitations**

This study only included graduates of a curricular learning community at PSCC that continued their education and earned a baccalaureate degree at private four-year institutions. Since a purposive sampling technique was employed to select participants, the participants in this study were not representative of the students at all other institutions that have participated in a learning community experience. This study included only community college graduates in career and technical fields that had participated in a curricular learning community at PSCC, and did not include students/graduates from other disciplines.

### **Limitations**

This study was conducted using qualitative methodology, which has several limitations.

First, while qualitative methodology provides a rich, holistic account of the phenomenon under study, findings from this study may not be generalizable to a larger population. Second, since the researcher was the primary instrument of data collection and analysis, the findings may have been influenced by researcher bias. Lastly, data were primarily gathered using semi-structured interviews and the review of graduate exit surveys. Although semi-structured interviews have been commonly used in social science research, participants' responses to questions may have been influenced simply by how they perceived the interviewer (Denscombe, 2010).

### **Assumptions**

This study was conducted with the following assumptions. First, it was assumed that study participants had participated in a curricular learning community and graduated from PSCC with a two-year degree. Second, it was assumed the participants had continued their education at a four-year institution and earned a baccalaureate degree. Third, it was assumed that participants chose to be a part of the study freely and without any external pressure. Last, responses from participants were assumed to be true to the best of their knowledge and memory.

### **Significance of the Study**

This study contributes to the existing knowledge and literature relating to the influence of learning communities on degree attainment at community colleges. While previous studies have indicated that learning communities have been used by two-year institutions to improve student retention and two-year degree completion (Crisp & Taggart, 2012; Taylor, 2003), this study explored how engagement in curricular learning communities may influence community college students in career and technical fields to attain a baccalaureate degree. In addition, examining information about what specific aspects of curricular learning communities increase student engagement may provide insight into which factors influenced community college graduates'

decisions to pursue a four-year degree. From a methodological standpoint, other studies have utilized a quantitative design to measure the effect of learning communities on persistence (McIntosh, 2012; Rini, 2010). While quantitative studies have positively associated learning communities with improved student persistence, the findings were limited in the depth of understanding beyond these conclusions. Employing a qualitative methodology provided an opportunity to expand what we know about curricular learning communities. Finally, findings from this study may guide community college leaders and practitioners in establishing curricular learning communities as a practice to improve four-year degree persistence.

### **Summary**

Chapter 1 introduced the current research literature related to the persistence and degree attainment of community college students, and an overview of curricular learning communities as a strategy to increase student engagement and persistence. A brief description of the study design, definitions, and assumptions was given to assist in understanding how the research was conducted. Further, it described how this study filled the gap in the existing literature in an effort to expand our understanding of how curricular learning communities influence the four-year degree attainment of community college students in career and technical fields. An overview of Tinto's (1993) integration framework and Kuh's (2001) theory of student engagement was provided and summarized as the theoretical framework used to analyze the study findings. Chapter 2 will provide an in-depth review of the research literature associated with community college student persistence, learning communities, and a critical analysis of the application of the theoretical framework.

## **CHAPTER 2: REVIEW OF THE LITERATURE**

### **Introduction**

This chapter provides an overview of the literature pertaining to the persistence of community college students majoring in career and technical fields. More specifically, it examines how engaging in learning communities might influence community college students to persist to baccalaureate degree attainment. The chapter is divided into six major sections: an overview of learning communities, types of learning communities, community colleges, an overview of learning communities in community colleges, an analysis of the literature relating to learning communities at community colleges, and a critical analysis of the literature written about learning communities in community colleges. The chapter concludes by introducing the theories of student persistence and engagement and a summary synthesizing the chapter.

### **Background**

National concern regarding the importance of postsecondary degree attainment has historically focused on public and private four-year institutions. Yet, students enrolled at community colleges account for over half of the entire undergraduate population of the nation (American Association of Community Colleges, 2014). Although community colleges admit the greatest number of students, many of the student are first-generation from low socioeconomic backgrounds, and over two-thirds attend part-time while working and attending to familial responsibilities (American Association of Community Colleges, 2014). These characteristics have often led to high dropout rates, which may contribute to the low persistence rates reported by many community colleges across the United States (National Center for Education Statistics, 2014). These factors have also been found to reduce the likelihood of successful transfer to a four-year institution or graduate with a degree/credential (Planty, Provasnik, Hussar, & Snyder,

2007).

In an effort to improve the persistence and degree completion of two-year students, community colleges have implemented practices focused on increasing student engagement such as learning communities. Many two-year colleges have adopted learning communities as a strategy to increase the academic and social engagement of commuter students (Bailey & Alfonso, 2005). Taylor, Moore, MacGregor, and Limblad (2003) conducted an extensive review of more than 100 studies of the effectiveness about learning communities at two-year and four-year colleges. They concluded that “a preponderance of studies indicate that learning communities strengthen student retention and academic achievement” (p. iii).

Although Taylor et al.’s (2003) findings were encouraging, they also highlighted weaknesses in the existing research related to the effectiveness of learning communities at community colleges. For example, of the studies reviewed by Taylor et al. (2003), only 25% were conducted at two-year institutions. In addition, there was no discussion of the issues associated with the design and effectiveness of learning communities on part-time commuter students. Finally, the studies reviewed by Taylor et al. (2003) did not investigate how participation in learning communities influenced the baccalaureate degree attainment of community college students. This study seeks to add to the literature regarding the practice of utilizing learning communities at two-year institutions as a strategy to increase baccalaureate degree completion.

### **Learning Communities**

Learning communities have gained popularity in recent years as a method to increase student persistence and completion. In general, a learning community is an institutional practice that places groups of students together in two or more “linked courses.” Linked courses consist

of two or more courses with the same students. Learning communities typically consist of 20 to 25 students who take linked courses together that are commonly organized around a theme, with shared and connected learning as curriculum goals. A learning community uses block scheduling, which arranges classes on the same day and time each semester, with the same group of students enrolled together in two or more courses. By their very nature, learning communities encourage social and academic interaction between students (Tinto, 1993, 1997).

According to Astin (1993), students who are involved academically and socially in shared learning experiences are more likely to persist to graduation. For instance, a quantitative study of randomly selected first-year and senior students from four-year colleges found that:

Participating in learning communities is uniformly and positively linked with student academic performance, engagement in educationally fruitful activities (such as academic integration, active and collaborative learning, and interaction with faculty members), gains associated with college attendance, and overall satisfaction with the college experience. (Zhao & Kuh, 2004, p. 14)

Although the use of learning communities has received increased attention in recent years, the history of the practice dates from 1927 with the creation of the Meiklejohn Experimental College at the University of Wisconsin (Cronon & Jenkins, 1994; Smith, 2001, 2003). Alexander Meiklejohn, a philosopher and university administrator, was concerned with the increasingly specialized curriculum at research universities. The smaller academic departments and fragmented curriculum made it more difficult for students and faculty members to develop and maintain relationships (Smith, MacGregor, Matthews, & Gabelnick, 2004). In 1927, Meiklejohn established a two-year experimental college with a uniform liberal arts curriculum, which existed until 1932 (Smith et al., 2004). Although short lived, the college emphasized the importance of

community as a method to foster learning, and highlighted useful curriculum and pedagogy.

### **Types of Learning Communities**

Over the years, learning communities have been adapted for use in various forms. Although several different models of learning communities are reflected in the literature, the basic premise of collaborative learning can be applied to the models. Crisp and Taggart (2013) found commonalities across learning community programs that include:

an integrated and interdisciplinary curriculum, crossing departments and divisions; a high level of participation and collaboration by faculty and students; an environment which supports new students in engaging in the life of an institution; and a student experience that establishes academic and social support networks. (p. 116)

Learning communities have generally used four models, which include classroom, residential, student-type, and curricular (Lenning & Ebbers, 1999).

Classroom learning communities feature collaborative learning practices and group process learning activities as integrated pedagogical approaches (Lenning & Ebbers, 1999). The classroom becomes an environment focused on community building. While a variety of learning activities can be described as collaborative, most of them focus on the students' exploration, reflection, and application of course material, not just an instructor's explanation of it. Examples of common collaborative teaching strategies include problem-centered instruction, writing groups, peer teaching, and discussion groups and seminars (Smith & MacGregor, 1992).

Residential learning communities organize on-campus living arrangements so that students taking two or more common courses live in close physical proximity, which increases the opportunities for out-of-class interactions and supplementary learning opportunities (Lenning & Ebbers, 1999). For example, East Tennessee State University residence halls host total-



immersion learning communities for medical students, in which living and learning are connected through social, cultural, and educational activities (East Tennessee State University, 2015).

Student-type learning communities are specifically designed for targeted groups, such as academically underprepared students, historically underrepresented students, honor's students, or students with disabilities. The targeted group could also include students who share similar academic interests, such as women in math, science, and engineering or students interested in a foreign language (Lenning & Ebbers, 1999). For example, Western Michigan University developed its Honors College Program around three sets of clustered courses. The clusters consisted of two courses limited to twenty-five honors students and a larger lecture course open to non-honors students. The purpose was to build a sense of community among honors students without segregating them from the other students (Gabelnick et al., 1990).

Curricular learning communities consist of students interested in similar fields of study who are co-enrolled in two or more courses, often from different disciplines (Lenning & Ebbers, 1999). This type of learning community can be adapted in several ways according to institutional type. For example, large universities such as the University of Oregon and the University of Washington enable students in a learning community to attend two or more lecture classes with hundreds of other students, but meet separately at a later time for a smaller group discussion. In contrast, students in the Federated Learning Communities of LaGuardia Community College take three or more courses together, and are the only participants in the courses. In addition to format, themes of learning communities may also vary. For instance, New York's LaGuardia Community College designed learning communities for business students (Tinto, 2004). Regardless of format or theme, students who participate in a curricular

learning community enjoy the benefits of cooperative learning with students who share similar interests.

### **Community Colleges**

This section describes the history and mission of community colleges and factors affecting community college student persistence.

#### **History and Mission**

The first community college was founded in 1901 in Joliet, Illinois (Brint & Karabel, 1989). Known then as a junior college, Joliet was established with the intent “to provide a terminal education to most of those who entered it” (p. 205). From the beginning, the purpose of junior colleges was to offer affordable vocational programs that provided marketable skills. Despite the aspirations of these early two-year students to transfer to a four-year institution, the institution’s main function was to offer vocational training. By 1940, community colleges occupied a distinct position in higher education that was described by Brint and Karabel (1989) as:

Attended by students of generally lower socioeconomic status and measured academic ability than their counterparts at four-year colleges and sending well under half of their entrants to bachelor’s degree-granting institutions, the junior colleges constituted the bottom track of the system of higher education’s increasingly segmented structure of internal stratification. (p. 206)

Although located at the lower end of the stratified higher education system, the number of community colleges grew rapidly with the passage of the Servicemen’s Readjustment Act in 1944 and the establishment of The Truman Commission in 1946, which provided funding to military personnel who wished to enroll in higher education (Hutcheson, 2007). This legislation

contributed to record enrollments at four-year colleges and universities, which resulted in the need for a “network of public, community based colleges to serve local needs” (American Association of Community Colleges, 2014, p. 4). As the years have passed, this early definition and mission of community colleges has remained unchanged.

Created as an easy access point to higher education, community colleges have historically served students of all ages with diverse backgrounds (Planty et al., 2007). While the majority of four-year students enroll full time with the goal of obtaining a bachelor’s degree, the experiences of two-year students are quite different. Research on community college students by Bailey and Alfonso (2005), Cohen and Brawer (2008), and McIntosh and Rouse (2009) reported differences that include having limited opportunities to actively engage in social activities, attending college part-time, working off-campus, having few opportunities to interact with faculty and peers, and having limited academic preparation. Unfortunately, research has also shown that these differences contribute to the challenge of persisting and/or degree completion (Chen & Carroll, 2007; Cohen & Brawer, 2008; Windham, 1994)

### **Community College Student Persistence**

Over half of all students who began at a community college failed to meet their desired goal upon enrollment, significantly less than students who began at a four-year school (Hagedorn, 2010; Windham et al., 2014). Moreover, findings consistently revealed that community college students were significantly less likely to persist or earn a college degree when compared to students who attended four-year schools (Dowd & Melguizo, 2008). Previous research pointed to several reasons for the differences between two-year and four-year students’ degree attainment, such as background characteristics, academic ability, part-time attendance, family interaction, intentions, major choice, and engagement (Seidman, 2012).

**Background characteristics.** When compared to other undergraduates, students attending community colleges come from a wider range of cultural backgrounds. For instance, 40% of undergraduates enrolled at community colleges in 2008 were non-White, 38% were first-generation students, and 56% were women, while the percentages at four-year schools were 33%, 25%, and 53% respectively (Goldrick-Rab, 2010). Warburton, Bugarin, Nunez, and Carroll (2001) found that 27% of first-generation students attended part-time and were much more likely to work full-time, compared to their peers whose parents had a college degree. First-generation students were also less likely to be enrolled continuously or to attain a degree at their initial postsecondary institution when compared to those same peers. Nunez, Cuccaro-Alamin, and Carroll (1998) identified other characteristics that included: first-generation students were more likely to be older, be married, have dependents, enroll at public two-year institutions, and attend part-time when compared to their non-first-generation counterparts. Two-year students also differ in socioeconomic status. According to Bailey and Alfonso (2005), more than half of all traditionally aged, first-time undergraduates in the lowest two socioeconomic (SES) status quartiles were enrolled in community colleges thereby making it the most common type of institution among these student populations. Low-income students have been found to be less likely to persist to degree completion than those from wealthier backgrounds (Terenzini, Cabrera, & Bernal, 2001).

**Academic preparation.** Another factor associated with lower persistence rates of community college students is an insufficient amount of academic preparation. Academic preparation refers to the training students received in core high school courses, resulting in levels of competency. Adelman (2006) identified a set of core high school courses considered crucial to adequate college preparation, including those in math, science, and foreign language.

However, low-SES students have less access to academic preparation for college because they often attend schools with fewer resources, less qualified teachers, and a lack of pre-college coursework (Goldrick-Rab, 2010). Indeed, many students have enrolled in community colleges with the misconception that open access institutions have no academic requirements and with little understanding of placement test consequences (Deil-Amen & Rosenbaum, 2002; Person, Rosenbaum, & Deil-Amen, 2006). As a result, approximately 60% of all community college students must complete developmental coursework, also known as basic skills courses, before enrolling in credit-bearing college courses (Bailey & Alfonso, 2005). Unfortunately, students enrolled in developmental education have lower persistence rates and degree completion. A study from the Boston Higher Education Partnership (BHEP, 2007) highlighted the relationship of academic under-preparedness, remedial education, and persistence. BHEP researchers found that over two-thirds of high school graduates who attended community colleges took basic skills courses. On average, those students enrolled withdrew or failed over 30% of the credits they attempted in the first year.

**Part-time enrollment.** College students enrolled in less than 12 credit hours in a semester are considered part-time students. Part-time enrollment has been associated with behaviors that may deter degree attainment, such as full-time employment and temporary withdrawals (Berker, Horn, & Carroll, 2003). Chen and Carroll (2007) utilized data from the annual 2003-4 National Postsecondary Student Aid Study (NPSAS) and the Beginning Postsecondary Students Longitudinal Study of 1996/98 to examine the relationship between part-time attendance, persistence, and degree completion. In their summary, they noted:

Exclusively part-time students differed from their full-time peers in many respects.

Compared with exclusively full-time students, exclusively part-time students tended to be

older, female, Hispanic, financially independent, and first-generation students (parents did not attend college). They also tended to come from low-income families (for dependent students), had weaker academic preparation, and had lower expectations of postsecondary education. (p. iv)

Chen and Carroll (2007) also noted that 64% of part-time students attended public two-year institutions, 83% of which worked full time. Further, 47% of part-time students classified themselves primarily as employees rather than students. The attendance patterns of part-time students can also constrain their opportunities to engage academically and socially with peers. Pascarella and Terenzini (1991) noted that part-time attendance was an important factor to consider because student engagement in educationally purposeful activities had a positive influence on student persistence and degree attainment.

**Family support.** Most community college students commute from home where they have an opportunity to interact frequently with parents, family members, and/or spouses. As a result, Braxton, Hirschy, and McClendon (2004) found that commuter students were more likely to be influenced by the attitudes and opinions of family than students residing on campus. A study by Terenzini et al. (1994) suggested that family support was important in encouraging attendance and persistence in college. In addition, Lopez (2005) found that emotional and financial support from parents and extended family members allowed students to improve their academic performance.

**Student intention.** Community colleges enroll students with a variety of intentions such as upward transfer to a four-year institution, lateral transfer to a different community college, or simultaneous enrollment in two or more colleges (Bahr, 2009). In an effort to better understand the diverse educational paths of community college students, Horn (2009) developed the

Community College Taxonomy (CCT) using 2003-4 Beginning Postsecondary Students (BPS) Longitudinal Study 2003-4 data. The CCT grouped students into three categories using level of intention. Students were classified as “strongly-directed” if they reported their intention to complete a program of study, attended at least half time during their first year of enrollment, and were enrolled in a formal degree program. Students who met only two of these criteria were classified as “moderately-directed” and all remaining students fell into the “not directed” category. Horn (2009) found that strongly directed students on the associate’s degree track were twice as likely to complete or continue their program than moderately directed students. Likewise, strongly-directed students on the transfer track were almost one and one-half times more likely to reach completion than moderately-directed students. Although the CCT relies on self-reported data that can be unreliable (Adelman, 1999) and does not account for underlying influences on student intentions, it can assist community colleges in assessing conditions positively associated with student persistence.

**Career and technical students.** While there has been an abundance of research relating to community college student persistence and retention, less literature has examined the persistence of two-year students majoring in career and technical fields. Hirschy, Bremer, & Castellano (2011) found that career and technical students differ from students seeking academic majors at two-year institutions in several ways, and understanding these distinctions was essential for improving retention and other outcomes. According to Hirschy et al., career and technical students:

Were more likely to be female (61.9% vs. 58.8%), African American (18.5% vs. 15.1%), older than 24 (37.0% vs. 25.0%), married (27.7% vs. 18.6%), first-generation college students (40.9% vs. 35.8%), and financially independent from their parents

(64.6% vs. 49.5%). They are also more likely than students with academic majors to receive financial aid (58.8% vs. 50.7%), work full-time (40.6% vs. 34.7%), identify themselves as an “employee who studies” versus “a student who works” (33.4% vs. 27.3%), have taken a vocational curriculum in high school (18.5% vs. 11.4%), and have a postsecondary grade point average (GPA) of 3.5 or higher (29.0% vs. 25.0%;). (pp. 298-299)

Alfonso, Bailey, and Scott (2005) found that career and technical students pursuing an associates degree achieved that goal less often than their academic peers. In addition, Bailey, Alfonso, Scott, and Leinbach (2004) found that more than two-thirds of career and technical students at two-year institutions dropped out after having completed a year or less of coursework over a five-year period.

**Student engagement.** Student engagement is the amount of time and effort students spend on studying and other activities while participating in organized learning opportunities provided by the institution (Pike & Kuh, 2005). The attendance and commuter patterns of community college students can make engagement challenging. However, Bailey and Alfonso (2005) noted:

The one place where the engagement model may be most relevant at the community college is in the classroom. This, after all, is where even commuter students interact with faculty and potentially with other students. Designing the classroom experience to promote more meaningful interaction among students and teachers is one promising strategy for community colleges. (p. 14)

In addition, studies by Pascarella and Terenzini (2005) and Pike and Kuh (2005) found that increasing student engagement with peers and faculty both inside and outside of the classroom



had a positive effect on two-year student persistence.

While previous research pointed to several reasons for the differences between two-year and four-year student degree attainment, even after controlling for these factors, community college students were 10% to 18% more likely to drop out of postsecondary education altogether (Seidman, 2012). In light of these statistics, many two-year institutions have implemented programs and practices, such as learning communities, in an effort to improve student persistence and enhance degree completion.

### **Learning Communities at Community Colleges**

Many of the programs and practices that emerged during the expansion of the community college system were a result of what was learned at the Meiklejohn Experimental College (Smith, 2001; Smith et al., 2004). Learning communities were first introduced at LaGuardia Community College in the 1970s to incorporate “collaborative learning and team learning and total restructure of classroom techniques that encourage and support classroom participation” (Hagedorn, 2010, p. 204). As of 2000, it was estimated that approximately 20% of community colleges in the United States implemented learning communities (Richburg-Hayes, Visser, & Bloom, 2008).

There has been extensive quantitative research on the effectiveness of learning communities. However, the focus of this research has been primarily on academic outcomes, which include retention/persistence (Richburg-Hayes et al., 2008; Scrivener et al., 2008), course grades and grade point average (Goldberg & Finkelstein, 2002; Raftery, 2005) and course completion (Bloom & Sommo, 2005; Moore, 2000). Also noted were the degree to which students were socially and/or academically integrated (Engstrom & Tinto, 2007; Tinto, 1997), and the influence of learning communities on student/faculty interactions (Minkler, 2000).

Several studies have included a qualitative element to investigate the particular attributes of learning communities that contributed to students' academic success. For instance, a study by Tinto and Love (1995) revealed that learning communities provided an opportunity for students to develop a support network of peers, which facilitated integration and transition to college. In a separate study, Tinto (1997) found that learning communities were perceived by students as allowing for more practical life experiences, leading to in-depth discussions and increased levels of participation. Similarly, Hodge, Lewis, Kramer, and Hughes (2001) noted that the close-knit atmosphere of learning communities promoted access and interaction with other students and faculty. Moreover, the findings from these studies pointed to a richer intellectual experience through the continuity of class assignments and activities, which encouraged students to engage in their own thinking about topics that crossed disciplines.

While the majority of previous research was on community college students as a whole, several studies have focused on students enrolled in developmental courses (McIntosh, 2012; Rafferty, 2005; Richburg-Hayes et al., 2008). Also noted were two studies that investigated the effect of learning communities on students enrolled in technical programs (Goldberg & Finkelstein, 2002; Kolenovic, Linderman, & Karp, 2013).

Overall, the majority of previous research indicated that learning communities are positively related to student persistence, grades, course completion rates, social and academic integration, and faculty/student perceptions. For example, the Scrivener et al. (2008) study of a randomized control group design from the Opening Doors Project at Kingsborough Community College suggested that assignment to the learning community group significantly improved a number of student outcomes. Improvements were noted in students' sense of integration and belonging and the number of courses attempted and completed.

In addition to social and academic support, researchers found that learning communities can provide a pathway for two-year students to gain a significant number of college credits in a short amount of time. The generation of academic momentum has been associated with increased persistence and degree attainment. Researchers found two-year students who completed 10 or more college level credits increased students' probability of earning a degree or credential (Calcagno, Crosta, Bailey, & Jenkins, 2007). Kolenovic, Linderman, & Karp (2013) studied participation in an accelerated learning community at the City University of New York and found that three years after enrollment, 55% of the students had earned an associates degree, compared to only 26% of students not enrolled in the accelerated learning community.

While most studies indicated the positive effects of learning communities, a few found that learning communities did not have a positive impact on student retention, persistence, and/or grade point averages (Bloom & Sommo, 2005; Goldberg & Finkelstein, 2002; Minkler, 2000; Moore, 2000; Richburg-Hayes et al., 2008). Goldberg and Finkelstein (2002) studied a group of 25 full-time Electronic Technician Certificate students with 16 randomly assigned to an experimental group registered in a team-taught learning community. The other nine students were randomly assigned to a control group registered for individually taught unlinked classes. Findings indicated that students who participated in the learning community had higher perceptions of academic and social integration. However, participating in the learning community did not affect students' persistence decisions, course grades, and GPA. Likewise, McIntosh's (2012) study of basic skills curricular learning communities found that the increase in student engagement by participants of learning communities was not a statistically significant predictor of student persistence. Similarly, Bloom and Sommo (2005) conducted a study of the Kingsborough Community College Opening Doors program, which placed participating

freshmen into learning communities of up to 25 students each. Each group took remedial English, a freshman orientation course, and one course of another academic subject that were taught by instructors that worked as a team. Bloom and Sommo found higher course pass rates and course completion rates, particularly in remedial English. However, Opening Doors students were no more likely than control group students to be enrolled at Kingsborough (or elsewhere in the City University of New York) one year later.

### **Analysis of the Literature**

Previous research has indicated that participating in learning communities can improve academic outcomes and student persistence (Bailey & Alfonso, 2005; Taylor et al., 2003; Tinto, 1997). However, the majority of previous research concerning the effectiveness of learning communities at two-year institutions has focused on two-year persistence and degree completion (Calcagno et al., 2007; Kolenovic et al., 2013; McIntosh, 2012). For example, Kolenovic et al.'s (2013) quantitative study of the Accelerated Study in Associate Program (ASAP) at CUNY focused on the increase in associate degree attainment by students who participated in ASAP. ASAP was designed to eliminate many of the economic and social barriers that hinder degree attainment by providing comprehensive support services to select community college students including tuition assistance, intrusive advising, and tutoring. According to Kolenovic et al., "ASAP participation positively influenced a wide range of academic outcomes, including retention and credit accrual" (p. 285). The study did not investigate how participating in the ASAP learning community influenced community college students' successful transfer to a four-year school and subsequent baccalaureate degree attainment. While Horn's (2009) study related to four-year degree attainment by community college students, it was limited to the strength of student intentions.

Earlier studies have primarily taken a quantitative approach to measuring the effectiveness of learning communities on academic outcomes (Bloom & Sommo, 2005; Goldberg & Finkelstein, 2002; Moore, 2000; Raftery, 2005; Richburg-Hayes et al., 2008; Rini, 2010; Scrivener et al., 2008). Richburg-Hayes et al. (2008) conducted a randomized experiment of a learning community program within an urban community college. The program, which consisted of a one-semester learning community that focused on remedial English, measured effects on full-time enrollment, the number of courses attempted and passed, remedial English pass rates, and credits earned during the semester in which it operated. Rini (2010) conducted a mixed methods study of the effectiveness of the comprehensive support services offered to students participating in ASAP at CUNY. While Rini found emerging trends related to which program incentives and services contributed most to ASAP student persistence and two-year graduation rates, the study did not examine how the particular incentives and services of ASAP influenced student persistence to baccalaureate degree attainment.

More qualitative research is needed to discover the specific aspects of learning communities that affect student persistence and four-year degree completion. A qualitative approach may provide a better understanding of how learning communities influence the successful transfer of two-year students to four-year schools, and ultimately, baccalaureate degree completion.

### **Conceptual Framework**

Tinto's (1975, 1987, 1993) longitudinal model of student departure (see Figure 1) has been widely used as a basis for research in the areas of student retention and persistence. Tinto (1975) built on Spady's (1971) comprehensive review of the literature on college dropout in an effort to develop a model that explained the dropout process. Tinto based his model on the work

of Van Genepp (1960), an anthropologist who studied the rites of passage in tribal communities to understand the movement of individuals and communities through time. Specifically, Van Genepp was interested in how individuals transferred their membership from one group to another. His research identified three rites of passage associated with this process: separation, transition, and incorporation. Separation occurred when a person broke away from past associations and declined interactions from the previous group. Transition represented the period of time when an individual began interacting with members of the new group and began developing the knowledge and skills necessary to fulfill their new role in that group. Incorporation involved individuals interacting in ways with the new group that would establish legitimate membership. According to Van Genepp, these rites of passage could be applied to other contexts associated with people moving from one group to the next.

Building on Van Genepp's earlier findings, Tinto (1975) developed a theoretical model of student departure rooted in Durkheim's (1951) theory of suicide to explain dropout from higher education institutions. According to Durkheim, egoistic suicide is more likely to occur when individuals are insufficiently integrated into the fabric of society. Since the college environment can be viewed as a social system with its own values and social structures, Tinto (1975) concluded that dropout from such societal systems was similar to that of suicide in the wider society. Tinto (1975) argued that the process of dropping out of college could be viewed as a process of interactions between individuals and the academic and social systems of the college.

Tinto's (1975, 1987, 1993) model explained student departure in terms of the level of academic and social integration achieved by students, which occurred through the formal and informal mechanisms of the institution. Tinto (1993) posited that a student's decision to depart

was the result of a longitudinal process based on their interactions with the academic and social systems of the institution. These interactions varied according to student attributes (e.g., family background, skills, prior schooling, etc.) and dispositions (e.g., intentions and commitments). According to Tinto (1993), these academic and social experiences were both formal (e.g., classroom, academic performance, extracurricular activities) and informal (e.g., out-of class faculty and staff interactions, and interactions with peers). Tinto argued that students' modified their intentions and commitments based on their experiences with social and academic systems. Specifically, as their integration into the academic and social environment increased, so did their intention and commitment to the goal of completing college at the institution. The alternate possibility also existed—the more separated or negative their social and academic experiences were—the more likely their intentions and commitments to completing college at the institution diminished. Tinto believed that in order for integration to occur, students must break away from their home communities and become immersed in the academic and social life of college, similar to the findings of Van Genepp (1960). According to Tinto, students gained a sense of belonging or lack of belonging through academic and social interactions and, with sufficient integration through those interactions, students would persist. However, even with sufficient integration, changes to external commitments or goals could still result in a student deciding to leave an institution.

Tinto (1975) developed his initial model based on a review of the existing literature relating to student departure rather than empirical evidence. In this model, Tinto suggested that student interactions with the academic and social systems of the college would result in some degree of integration. He revised his model in 1993 to describe academic and social integration as “some type of social and/or intellectual membership in at least one college community” (p.

121).

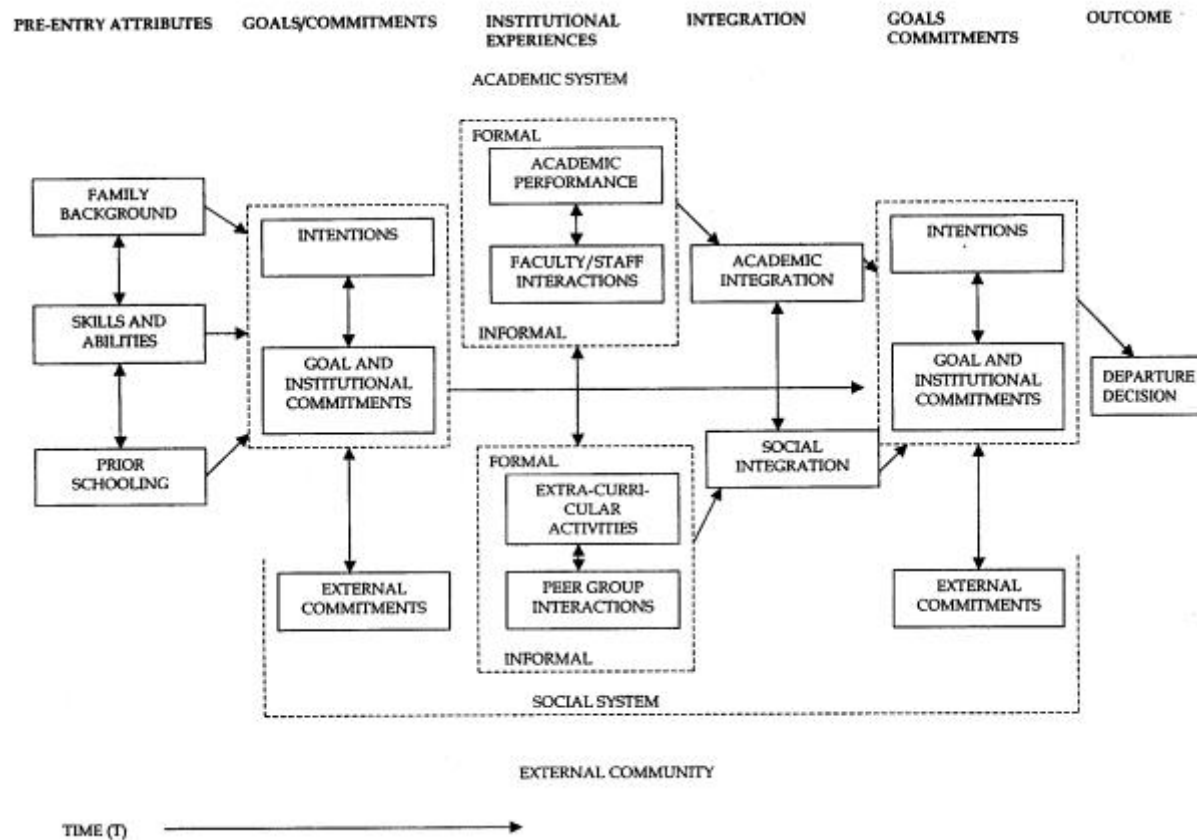


Figure 2-1. A Longitudinal Model of Institutional Departure\*

\*Source: Tinto (1993, p. 114)

### Application of Tinto's Model

Pascarella and Terenzini (1983) studied first-year students at a residential institution for a one-year period. The purpose of the study was to examine if there was a difference in importance of academic integration versus social integration in relation to student persistence. In addition, they examined any differences in importance of these two elements between men and women. Academic integration was measured using variables including GPA, discussions with faculty unrelated to class material, perceived intellectual development, and student perceptions of faculty concern. Social integration was measured using variables including relationships with



peers, interactions with faculty outside of class, and extracurricular activities. The study found that “the constructs outlined in Tinto’s model have reasonable predictive power in explaining variance in freshman year persistence/voluntary withdrawal decisions” (p. 224). In addition, they found that academic integration was more important than social integration for men’s persistence and social integration was more important than academic integration for the persistence of women.

Pascarella and Chapman (1983) expanded on previous research by studying the validity of Tinto’s model in relation to different types of institutions (four-year residential, four-year commuter, and two-year commuter institutions). They measured academic and social integration using a variety of variables including first-semester GPA, expected second-semester GPA, hours spent studying, and frequency of contact with faculty and peers for academic topics. Social integration measures were participation in extracurricular activities and social activities, frequency of peer conversations, informal conversations with faculty, number of friends on campus, and dating on campus. The study found that social integration was more important for persistence at four-year residential institutions, while academic integration was more important for student persistence at commuter institutions.

Stage (1989a, 1989b) also used Tinto’s model, but utilized different measures for academic and social integration. She used GPA, credits earned in first semester, hours doing academic extracurricular activities, and responses to the Academic Development Scale and the Faculty Concern Scale to measure academic integration. She measured social integration using hours spent on social activities, hours participating in athletics, residency on campus, campus employment, and responses to the Peer Group Relations Scale and Informal Faculty Relations Scale (Pascarella & Terenzini, 1983). Pascarella and Terenzini’s (1983) scales measured

students' feelings about their experiences and relationships with other students and faculty.

The results of these early studies suggested that academic and social integration had a positive influence on student persistence. Although these studies used a variety of variables to measure these two aspects of integration, they did not take into account variables associated with institutional practices or programs, which could potentially improve student engagement and persistence. Further, the studies focused on predominantly White students at four-year universities and may not be transferrable to all students at all institutional types (Pascarella & Chapman, 1983; Pascarella & Terenzini, 1983).

### **Limitations of Tinto's Model**

Because the majority of studies that have used Tinto's (1993) model were conducted at four-year residential institutions (Cabrera, Nora, & Castaneda, 1993; Pascarella & Terenzini, 2005), they focused on student behaviors and variables associated with that type of institution. Community colleges have several characteristics that differentiate them from four-year residential schools. First, community colleges students often have the opportunity to pursue educational opportunities in close proximity to their home, which decreases the chance of feeling the intense separation often experienced by four-year students moving to a residential institution. Second, two-year students tend to keep their life at college separate from their home life, making it more difficult to integrate academically and socially with the college (Fogarty et al., 2003). Finally, Tinto (1997) found that integration into college was signified by membership in academic and social communities. However, this framework has been viewed as irrelevant in the application of two-year student persistence because researchers assume students do not have time to participate in activities that would foster social integration since they live away from campus and tend to have multiple demands of work and family (Braxton, Sullivan, & Johnson, 1997;

Fogarty, et al., 2003; Karp, Hughes, & O'Gara, 2010). Braxton et al.'s (1997) review of empirical tests of Tinto's (1975) original model found few of Tinto's propositions supported by studies conducted at community colleges. While the very nature of attendance patterns may make it difficult for commuter students to interact and engage socially, studies have shown that academic and social integration have at least an indirect role in community college persistence and degree attainment (McIntosh, 2012; Seidman, 2012;).

Although Tinto's (1993) model of student departure has been challenged, it has remained a foundational theory used to describe and explain student persistence. His integration framework has been used for more than three decades to understand the factors relating to student retention (Braxton, Milem, & Sullivan, 2000; Metz, 2004, 2005). Tinto's (2002, 2004) later work described student success as a shared responsibility between the institution and the student. He argued that shared responsibility was accomplished when the student had the necessary intention and commitment and the institution provided an environment that encouraged students to engage in both the academic and social systems of the college. This premise builds on Kuh's (2001) theory of student engagement, which has been associated with increased student retention and persistence. Kuh, Kinzie, Schuh, and Whitt (2005) found two components associated with student engagement. The first component involved the amount of time and effort students invested in their studies and other activities. The second component related to the extent of organized learning opportunities and services institutions provided to students. Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) found student and faculty contact and active collaborative learning related to high levels of student engagement (see Figure 2). The concept of shared responsibility between the institution and the student makes Tinto's (1993, 1997, 2004) integration framework and Kuh's (2001) theory of engagement appropriate for

studying learning community programs since they have been designed to facilitate academic and social integration in the classroom with the intention of increasing student engagement and persistence.

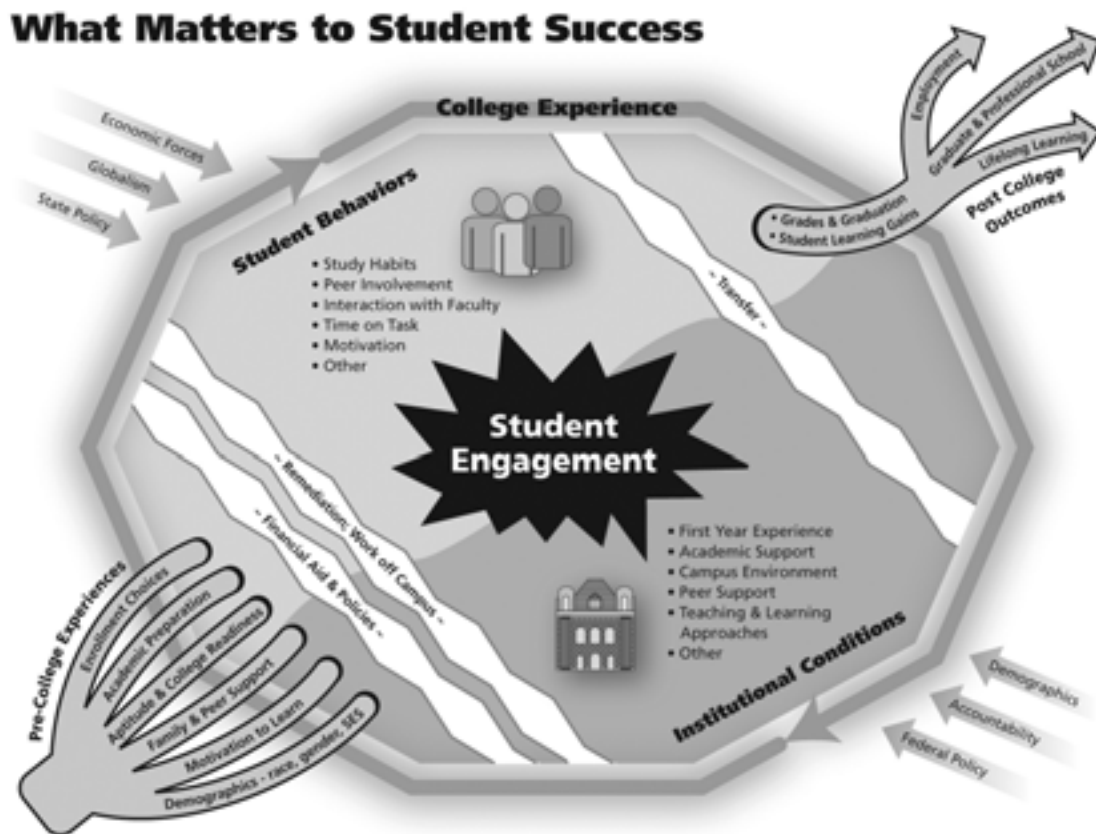


Figure 2-2.\*

\*Source: (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006, p. 8)

## Conclusion

Extensive research reviews the positive impact of learning communities on two-year degree attainment. However, there has been limited research related to the effect of learning

communities on the baccalaureate degree attainment and transfer to four-year colleges of community college students in career and technical fields. In addition, the majority of extant studies used quantitative methods focused on academic outcomes, creating a need for more qualitative research. With nearly half of the nation's undergraduates beginning their careers in higher education at community colleges, a better understanding is needed of the specific aspects of learning communities that may affect community college student persistence and four-year degree completion.

## **CHAPTER 3: METHODOLOGY AND PROCEDURES**

### **Introduction**

This chapter revisits the purpose of the study and the research questions. The study design and the research method are explained, as well as a description of the sample selected for the study. A description of the participant selection process and the procedures for collecting and analyzing data are also discussed. The chapter concludes with a summary of the methodology and a timeline of remaining research activities to complete the study.

### **Purpose of the Study**

The purpose of this study was to examine how engaging in a curricular learning community influenced the four-year degree completion of community college graduates in career and technical fields. In addition, this study also investigated which specific aspects of learning communities influenced the graduates' decisions to complete a four-year degree.

### **Research Questions**

This study included an inquiry of career and technical community college graduates from one community college who participated in a learning community and completed their baccalaureate degree. The research addresses the following questions using qualitative methods:

1. How does participation in a curricular learning community influence the baccalaureate degree attainment of community college career and technical graduates?
2. What specific aspects of a curricular learning community influenced graduates' to complete a baccalaureate degree?
3. How did the identified aspects influence graduates' decisions to pursue a baccalaureate degree?

## **Research Method and Rationale**

This study was conducted using a qualitative research methodology. Qualitative research focuses on the meaning and understanding of a phenomenon, establishes the researcher as the primary instrument of data collection and analysis, provides an inductive investigative process, and produces results that are rich with description (Merriam, 2009; Miles & Huberman, 2014). Qualitative methods have been deemed appropriate for use when “the purpose is to understand how people make sense of their lives and their experiences” (Merriam, 2009, p. 23). It is the details of these varying experiences, captured through qualitative research, that provide the rich detail necessary to better understand the phenomenon under study. This is the primary strength of qualitative research methods. Other advantages include flexibility, high tolerance for ambiguity, careful observation, and thinking inductively. The primary weakness of qualitative research is its inability to produce broad, generalizable findings applicable to a larger population as quantitative methods do (Merriam, 2009). However, as Shields (2007) argued:

The strength of qualitative approaches is that they account for and include difference—ideologically, epistemologically, methodologically—and most importantly, humanly. They do not attempt to eliminate what cannot be discounted. They do not attempt to simplify what cannot be simplified. Thus, it is precisely because case study includes paradoxes and acknowledges that there are no simple answers, that it can and should qualify as the gold standard. (p. 13)

This research used a single case study design and purposive sampling to select the institution, program, and participants. According to Merriam (2009), “case study has proven particularly useful for studying educational innovations, evaluating programs, and informing policy” (p. 51). Utilizing a single case study design offered a means to investigate the

baccalaureate degree attainment of career and technical graduates of a community college who participated in a curricular learning community program. Purposive sampling is appropriate when “the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (Merriam, 2009, p. 77). The power of purposive sampling lies in its ability to select cases rich with information for in-depth study (Patton, 2002)

### **Site Selection Criteria**

The strategy for the purposeful selection of PSCC was twofold. First, the community college under investigation had to have the resources needed to maintain a curricular learning community program. Second, the institution had to have a curricular learning community program that had been in operation since 2009 in order for graduates to have the time needed to complete a four-year degree. The purpose of the study was to investigate the baccalaureate degree attainment of graduates of a community college who had participated in a curricular learning community program. Three criteria were used to select the institution, and in turn the respective curricular learning community, for the study:

1. The institution had a curricular learning community that had been established for more than four years in order to track four-year degree attainment.
2. A majority of students enrolled in the curricular learning community had completed a two-year degree.
3. At least 15 graduates from the curricular learning community transferred to a four-year institution and attained a baccalaureate degree.

### **Institutional Setting**

The community college in which the study was conducted was purposively selected based on the longevity of its curricular learning community program. As noted earlier, curricular



learning communities consist of students interested in similar fields of study that are co-enrolled in two or more courses (Lenning & Ebbers, 1999). The institution selected for this study was Pellissippi State Community College (PSCC), which was established in 1974 in Knoxville, Tennessee. According to the United States Census Bureau (2010), Knoxville is the third largest city in Tennessee with a population of approximately 400,000, which consisted of 85.6% white, 8.8% black, 3.5% Hispanic, 2.0% Asian, 1.9% two or more races, and 1.5% other.

As the largest of 13 public community colleges in Tennessee, PSCC serves almost 11,000 students across two counties (PSCC, 2015). PSCC offers associate degrees in university parallel and career and technical tracks, as well as numerous certificate, workforce development, distance learning, and continuing education programs. The mission of PSCC states:

The mission of Pellissippi State Community College is to serve its community by providing college-level and non-credit courses and learning support instruction using a variety of delivery methods, including distance learning. The College provides support for teaching and learning, training and workforce development, and opportunities for civic and cultural enrichment. (PSCC, 2015, p.1)

PSCC has five campuses: four are located in Knox County, and the other is located in neighboring Blount County. The Hardin Valley campus serves the majority of PSCC's students, approximately 6,000, and is located in the suburbs 15 miles west of downtown Knoxville. The Blount County campus is second with over 1,200 students and is located in the more rural community of Maryville, Tennessee. PSCC has two campuses located near the downtown area and together they serve almost 1,700 students. PSCC's newest campus is located approximately ten miles east of downtown and serves approximately 300 students.

Demographically, the students at PSCC consist of 53% females and 47% males, with an average age of 25 (Tennessee Higher Education Commission, 2014). The student ethnicity breakdown is 84% white, 6% African American, 3% Hispanic, 3% two or more races, and 2% Asian, which is representative of Knox County's general population (East Tennessee Economic Development Agency, 2015).

### **Program Selection**

A curricular learning community at PSCC was the program chosen for this study. Established in 2007, the Accelerated Higher Education Associates Degree (AHEAD) program began with career and technical students in the fields of management and industrial maintenance seeking an Associate of Applied Science (A.A.S.) degree (PSCC, 2015). AHEAD is a 16-month program in which students co-enroll together in courses that meet two evenings per week for five weeks at a time. In 2015, there were 17 different learning communities in nine different areas of study offered through the AHEAD program. The scarce research previously conducted concerning the influence of curricular learning communities on technical and vocational students has focused primarily on persistence rates related to associate degree attainment (Goldberg & Finkelstein, 2002; Kolenovic, Linderman, & Karp, 2013; Rini, 2010). Therefore, the program chosen was ideally suited for the purpose of this study.

### **Sample Selection**

For this study, purposive sampling using a network sampling technique was used to select participants. Network sampling, one of the most common forms of purposive sampling, involves locating and interviewing a few key participants who meet the criteria established for the study (Merriam, 2009). During these interviews, participants are asked to refer other people who meet the study criteria, thereby adding new participants (Patton, 2002). In this study, faculty members

teaching in the AHEAD program at PSCC were asked to identify graduates from the program that had attained a four-year degree. These graduates became the initial participants in the study and referred other graduates during the interview process, thereby creating a network sample.

Three criteria were used to select sample participants for the study:

1. Participants were career and technical graduates of the two-year institution selected for the study.
2. The career and technical graduates were participants in the curricular learning community.
3. The career and technical graduates that had participated in the curricular learning community had also attained a baccalaureate degree from a four-year institution.

Given the purpose of the study, the sample contained a minimum of 15 participants to achieve “reasonable coverage of the phenomenon” (Patton, 2002, p. 246). The sample consisted of male and female career and technical graduates who have participated in a curricular learning community at a two-year institution and also have completed a baccalaureate degree.

### **Data Collection Instruments**

As a qualified researcher, I was the primary instrument of data collection for this study. Although my position as a tenured faculty member of both the institution and program selected for this study may increase researcher bias, I have utilized several strategies to minimize this risk (Merriam, 2009). First, I maintained an attitude of reflexivity throughout the study, engaging in critical self-reflection about my potential biases and predispositions. Second, I purposefully reported any findings during my investigation that disconfirmed my expectations, thus producing more credible and defensible results. Third, I engaged in ongoing peer review with colleagues regarding the process of the study and the findings as they emerged. Finally, I provided a rich,

thick description that contextualized the study in a way for readers to determine the extent to which their circumstances matched that of the research context.

For the purpose of this study, in-depth, semi-structured interviews were the primary data collection protocol. Interviews provided an opportunity for participants to share their story in an intimate setting. The main purpose of interviewing is to find out special information (Merriam, 2009, p. 88). Patton (2002) describes interviews as follows:

We interview people to find out from them those things we cannot directly observe...We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time. We cannot observe situations that preclude the presence of the observer. We cannot observe how people have organized the world and the meanings they attach to what goes on in the world. We have to ask people questions about those things. The purpose of interviewing, then, is to allow us to enter into the other person's perspective. (pp. 340-341)

An interview guide was developed with open-ended questions to guide the interviews. As noted by Merriam (2009), open-ended questions allow the researcher to respond to the emerging worldview of the respondents and to new ideas about the topic. The interview guide was peer reviewed and tested during a pilot study in an effort to increase the validity and reliability of data collected.

Exit surveys completed by graduates of the curricular learning community were also reviewed to triangulate the data gathered from the interviews. The surveys are administered in paper form to the graduates at the end of the program and are completed anonymously. The exit survey is used to collect demographic data, program suggestions, and open-ended comments relating to the graduates' thoughts and reflections about the program.

### **Data Collection Procedures**

Before collecting data, approval for the study was obtained from the Institutional Research Board (IRB) at both the institution selected for investigation and the university in which the researcher is affiliated. Once permission was granted, a pilot study was conducted with five graduates from the AHEAD program at PSCC. The purpose of the pilot study was to refine the interview guide and to gain referrals for additional participants. Faculty members from the curricular learning community identified these graduates as individuals that had completed a baccalaureate degree at a four-year institution. Data was collected through semi-structured interviews using an interview guide that was developed for this study. Interviews were conducted at a convenient time and location selected by the participants. Two rounds of interviews were conducted with each participant, varying in duration from 60 to 90 minutes. The purpose of the first interview was to gather background information and demographic data, as well as address any questions from the participants. The purpose of the second interview was to collect data relating to the participants experience in the AHEAD program. These data collection procedures were repeated during the actual study with 10 additional participants that met the selection criteria.

### **Data Analysis Procedures**

This study used the theoretical lens of academic and social integration from Tinto's (1993, 1997) integration framework and Kuh's (2001) theory of engagement to analyze the data from this study. Tinto (1993, 1997) argued that students modified their intentions and commitment to persist as a result of their experiences with the academic and social systems of the institution. He asserted that highly integrated experiences would strengthen students' intentions and commitments related to the goal of completing college.

Because learning communities use collaborative learning and teaching methods, they tend to help foster social and academic integration and engagement (Kuh, 2001; Tinto, 1993, 1997). Collaborative learning can facilitate the development of student work and study groups, as well as faculty/student interactions, activities linked to higher levels of student engagement (Pike & Kuh, 2005). Further, Tinto (1997) found that learning communities might shift knowledge construction by shifting how responsibility is shared. Instead of students taking responsibility for only their own academic performance, they develop a responsibility to their peers, which can result in the development of meaningful relationships (Tinto, 1997). Accordingly, this process can lead to an intentional integration between academic and social communities.

Using Tinto's (1993, 1997) academic and social integration framework as a guide, data coding was inductive and iterative. After each interview, field notes were composed detailing the date and setting of the interview, and the researcher contracted a third party to transcribe the interviews. Next, the researcher listened to each recorded interview in its entirety, noting initial themes in the participants' responses. Based on Tinto's (1993, 1997) and Kuh's (2001) theories, academic and social engagement were used as initial themes to assist with organizing the data. In order to identify any data that might be useful, an open coding process was used (Merriam, 2009). The researcher open-coded the transcript from the first interview using an iterative coding process, which was then used to code the data from the second interview, creating codes for new themes that emerged. Member checks were performed with participants to ensure that data interpretations were plausible. According to Maxwell (2005), "this is the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say and do and the perspective they have on what is going on" (p. 111). Finally, a case matrix of

participants was developed using the value codes from the interview data and field notes. A case matrix is often used in qualitative case studies to display data in rows and columns in order to facilitate analysis of the data (Miles & Huberman, 2014). Organizing the data in this manner allowed for a comparison of common codes found across participants.

### **Limitations**

This study had several limitations. First, a random sampling technique was not used to identify curricular learning community programs or participants. This study was limited to career and technical graduates that participated in a curricular learning community at one community college. Therefore, it cannot be claimed that the participants in this study were representative of students at every institution in all contexts.

Second, the data used in this study was gathered through semi-structured interviews. Although this technique is commonly used in social science research, participants' responses to questions may have been influenced simply by how they perceived the interviewer (Denscombe, 2010). To mitigate this risk, graduate exit surveys were reviewed to increase validity.

Finally, this study used a qualitative methodology with a case study design. While this design allowed for a rich, thick description of the context, findings may not be generalizable to a larger population.

### **Summary**

This chapter outlined the methods for conducting this study. The chapter began by restating the purpose of the study and research questions answered. The methodology used for this study was reviewed and the research design was presented. A description of the institution and program selected for the study was presented, followed by an explanation of the process for selecting the sample selection. Finally, the procedures for conducting the research and the

process through which data was collected and analyzed were discussed. The next chapter reviews the results of the study.



## **CHAPTER 4: FINDINGS**

This chapter presents the findings of the study, framed by the purpose and research questions. The first section describes the participants through the presentation of individual profiles. The next section presents how participation in a curricular learning community influenced the baccalaureate degree attainment of community college career and technical graduates. Excerpts from participant interviews are included to support the findings and illustrate the themes that emerged from the data. The chapter concludes with a summary of the information presented and a preview of Chapter V.

### **Participant Profiles**

Profiles presented in this section include information gathered during individual interviews from participants of both the pilot study and treatise study. These profiles assist in capturing the personality of each participant and their individual experiences they brought to the study. Table 1 below provides an overview of the participants, who were given pseudonyms to protect their identities.

<b>Participant</b>	<b>Age</b>	<b>Pre-AHEAD Program Experiences</b>	<b>First Generation College student</b>	<b>Year entered AHEAD cohort</b>	<b>B.A. Degree Granting Institution</b>
Stacy	29	Former PSCC day student dropout	No	2013	Tennessee Wesleyan College
Roger	49	Dropped out of PSCC over 25 years ago.	Yes	2011	Tennessee Wesleyan College
Nathan	45	Needed an associate's degree to keep his job.	Yes	2010	King University
Lisa	29	Intended to go to large university after high school but backed out.	Yes	2013	Tennessee Wesleyan College
Joe	31	Worked as a manager in fast food; switched to insurance agent and needed a degree	Yes	2009	Bryan College
Jack	48	Grew up in a military family; high school dropout	No	2011	King University
Jody	36	Former college dropout due to pregnancy	No	2013	Tennessee Wesleyan College
Anna	36	Entered workforce after being homeschooled.	Yes	2009	Bryan College
Dana	54	Enrolled in AHEAD to advance her career.	Yes	2011	King University
Daniel	33	Began as a day student but switched to evenings due to work.	Yes	2011	King University
Doug	46	Unable to navigate admissions process after high school and entered fast food industry	Yes	2009	Bryan College
Donald	34	Homeschool background; needed a degree to get a Chick-fil-A franchise.	No	2007	Tusculum University
Beth	41	Former PSCC dropout; enrolled in AHEAD 20 years later.	Yes	2011	King University
Brian	51	Dropped out of college to get married; came by 35 years later.	Yes	2011	King University
Edward	46	Worked in the hair industry until enrolling in AHEAD.	No	2007	Tusculum University

Table 4-1: Description of Participants

Stacy graduated from high school with the intention of going to college to become a teacher. Instead, she married her high school sweetheart and entered the workforce. Seven years later she enrolled as a part time student at Pellissippi State Community College (PSCC), taking one or two classes each semester. Stacy dropped out after a few semesters of making little progress towards a degree. Two years later, Stacy enrolled in the AHEAD (Accelerated Higher Education Associate's Degree) program at PSCC and earned her associate's degree in accounting. She then transferred to a similar evening program at Tennessee Wesleyan College, where she earned a baccalaureate degree.

Although Roger was not a good student in high school, he enrolled as a computer science major at PSCC after graduation, becoming the first in his family to attend college. He lacked the study skills to succeed and soon dropped out to become an electrician like his father. Seeking career advancement, Roger enrolled in the AHEAD program after working in construction for 25 years. Upon completion of his associate's degree, he transferred to Tennessee Wesleyan College where he earned a bachelor's of science degree in human resources.

Nathan intended to join the air force after high school, but suffered a knee injury while playing football his senior year, which made him ineligible. Since his parents had not attended college, Nathan did not consider higher education as an option. Once his knee healed, he held several different jobs spanning 25 years including bartender, waiter, mortgage broker, factory employee, and construction worker. Nathan interviewed for a job in construction at the Department of Energy and was hired with the understanding that he would obtain an associate's degree. He enrolled in AHEAD, a program that fit his work schedule, and finished his associate's degree. One year later, Nathan transferred to King University and obtained an online baccalaureate degree in information technology.

After being awarded an academic scholarship, Lisa planned to go to the University of Tennessee. Her intentions changed during new student orientation. Feeling completely overwhelmed by the size of the university, she opted instead to attend cosmetology school with plans to obtain her business degree afterwards. However, she became sidetracked by various office jobs and it was 10 years before she enrolled in the AHEAD program. Upon completion of her associate's degree, Lisa transferred to Tennessee Wesleyan College where she earned a bachelor's degree in human resources.

Joe began working at a fast food store when he was 16 years old and was offered a management position at age 18, earning \$32,000 per year. Joe's father, a brick mason who had instilled a strong work ethic in Joe, was not surprised when he chose to accept the position instead of going to college. After years of working swing shifts and weekends, Joe left the fast food industry and accepted a position working at an insurance agency. Joe found he enjoyed helping people solve problems and dreamed of opening his own insurance office. In order to do so, he knew he would need to go back to college and earn an associate's degree while still maintaining his day job at the insurance agency. Joe enrolled in the AHEAD program and obtained his associates degree before transferring to Bryan College where he completed his baccalaureate degree in less than three years.

Jack described himself as a military brat who moved around with his family every two years. He was not a good student and attributed his poor grades to constantly changing schools. Jack dropped out of high school during his sophomore year and worked odd jobs for six months before returning to school and eventually graduating. After high school, he pursued a two-year degree as a health physics technician but was unable to finish due to financial constraints. After getting married and starting a family, interest in earning more money motivated Jack to go back

to college. He completed his associate's degree in the AHEAD program at PSCC and earned a bachelor's degree from a similar evening program offered at King University.

After graduating from high school, Jody enrolled at Niagara University in upstate New York. A good student, she had received a scholarship that covered 80% of the attendance costs. However, six weeks into the first semester, Jody discovered she was pregnant. She decided to drop out of school to get a job so she could provide for her child. Fifteen years later, Jody was married, had two children, and lived and worked in Tennessee. She wanted to go back to school but both she and her husband worked full time jobs and their family lived 10 hours away. Because the AHEAD program was offered during the evening when her husband could be home with the children, she decided to enroll. While her oldest child completed high school, Jody earned her associate's degree from PSCC followed by her bachelor's degree from Tennessee Wesleyan College.

Anna was homeschooled during high school and went to work at a credit union immediately after graduation. Anna's employer encouraged her to go to college, but she resisted. She was afraid her homeschooling background would prevent her from keeping up with the other students. In fact, Anna did not have any experience learning in a traditional classroom setting and was unsure of how she would adapt to one. Finally, after 10 years, Anna enrolled in the AHEAD program. The evening timeframe fit her work schedule and the small class sizes seemed less intimidating. Earning her associate's degree gave her the confidence to transfer to Bryan University where she obtained her baccalaureate degree.

Dana was a middle-aged woman in her 50s before she decided to go to college. She had a stable job with the state of Tennessee but she wanted to move to a more professional position. Dana explained her decision to pursue a college degree as a desire for self-improvement. She

had been a good student in high school, but was unsure how she would manage the time commitment of going school with raising a daughter and working a full time job. Dana successfully completed her associate's degree. She successfully transferred to King University's evening program and earned her four-year degree.

Daniel knew he wanted to go to college but was not sure what he wanted to study. He got a job and enrolled at PSCC part time. After attending classes for two years and still undecided as to what his field of study would be, he discovered the AHEAD program. He needed a structured pathway to get a degree and stop wasting time. The AHEAD program provided an opportunity to do just that so he decided to try it. Sixteen months later Daniel earned his associates degree and has since not only earned his bachelor's degree from King University but his master's degree as well.

Doug intended to enroll at the University of Tennessee immediately after high school but failed to submit all the required documentation during the application process and was refused entrance. Doug decided to try again the following year and in the meantime went to work in the fast food industry, which is where he stayed for the next 20 years. At that point, Doug decided that a college degree would give him the advantage he needed to change his career path so he enrolled in the AHEAD program. After completing his associate's degree at PSCC, Doug earned a bachelor's and a master's degree from Bryan University.

Donald was homeschooled for 12 years and described his education as a fast paced, self-taught experience. Although his parents had no formal college training, they held their children to high standards of performance. When Donald finished his homeschooling, he worked at a few different part time jobs for six years until he was hired at Chick-fil-a. He enjoyed that job and wanted his own franchise, but that required a college degree. Donald was married and working

60 hours per week in a management position, which left little time for attending classes. He first enrolled at PSCC as a part time day student, taking one or two classes each semester. Donald enrolled in the AHEAD program on the advice of one of his professors, and graduated 16 months later with his associate's degree. He immediately transferred to a similar evening program at Tusculum University where he completed his baccalaureate degree in 18 months.

Beth had played basketball her entire life and hoped to receive a scholarship to play for the University of Tennessee. That dream ended when an injury took her off the court at the end of her junior year. Instead of playing basketball, she enrolled at PSCC to pursue a degree in radiology. After 18 months in the program, Beth decided to accept a job offer and dropped out of school. Although Beth intended to take only a semester off, it was 20 years later before she enrolled in the AHEAD program. Beth's decision to return to school was driven by being laid off from her job. After being informed by prospective employers that she needed a degree to find the type of work she sought, Beth knew she had to go back to college. Three years later, she has earned an associate's degree from PSCC and a baccalaureate degree from King University.

Brian attended Middle Tennessee State University (MTSU) for one semester when he dropped out to marry his high school sweetheart. After his son was born, Brian's wife earned her bachelor's degree but Brian felt he still had too many responsibilities to commit the time and energy to college. After his son graduated from college, Brian finally felt the time was right to pursue his own educational goals. Working a full time day job meant that Brian would have to go to school at night. PSCC's proximity to home as well as the compressed evening schedule of the AHEAD program appealed to Brian so he enrolled. After leaving MTSU over 35 years ago, Brian's educational goals are complete with an associate's degree from PSCC and a bachelor's degree from King University.

Edward had never considered himself academically gifted, which is why he did not consider college as an option after graduating from high school. He enrolled in cosmetology school instead and worked in that industry for the next 20 years. After opening his own salon, he decided to enroll in college to get the training he needed to become a better business owner. Edward needed a program that would fit his schedule and still be affordable. Because most of his clients needed day appointments, an evening program was his only option. Although he enrolled in the AHEAD program to improve his business acumen and earn an associate's degree, he went on to complete his bachelor's degree at Tusculum University.

**Question 1: How does Participation in a Curricular Learning Community Influence the Baccalaureate Degree Attainment of Community College Career and Technical Graduates?**

Four major themes emerged from the data related to how engagement in a curricular learning community influenced the baccalaureate degree attainment of community college graduates in career and technical fields. The themes arose from the individual interviews with participants, many of which were congruent with findings in the literature concerning the benefits of learning communities. Each theme is listed below followed by its description. In addition, the voices of the participants are presented in the form of excerpts from the individual interviews to illustrate the essence of each theme.

**Student Engagement**

Student engagement refers to the amount of time and effort students invest in their studies and other activities, and the extent of organized learning opportunities provided by the institution (Kuh, Kinzie, Schuh, & Whitt, 2005). Participants experienced engagement in several different



ways, including peer interaction in the classroom, peer influence to succeed, and a personal desire to continue learning.

**Peer interaction in the classroom.** Participants indicated that the hours spent interacting with their peers in the classroom increased their willingness to actively engage in class discussions and activities. By doing so, they were able to experience a rich and meaningful learning environment, which fueled their desire to expand their education beyond an associate's degree. Brian enjoyed the time spent in class, stating, "I think in each class, the amount of conversation we had, the input that the students had, was phenomenal." Roger echoed that sentiment and explained:

Our group had the older, experienced people that had work related, real life experience... to see and hear other people's thoughts, ideas, things that they have seen and problems that they have encountered, I think that all added to the educational experience.

Nathan indicated that he had also benefitted from his classmates:

You can learn things from your classmates that you don't know, and vice versa.

Hopefully, you are able to provide something that someone else doesn't know and they can learn from you.

Lisa valued the diversity of her classmates and gave them credit for expanding her knowledge base:

Our class was great. We were able to really gain a better understanding about different industries. We had people in manufacturing, in unions and non-unions, and customer service. We had a lot of different backgrounds, and we were able to gain a better understanding of how to apply different issues at work.

**Peer influence to succeed.** Participants reported that the academic success of their peers influenced them to be equally successful. Joe described how the high level of achievement of his classmates contributed to his decision to pursue a baccalaureate degree:

You want to surround yourself by winners...If you've got people that are striving to be excellent and do great things, you want them in your circle of friends. That was a cool thing for me at Pellissippi because you developed a foundation of friendship with people that wanted to be excellent. We surrounded ourselves by excellence and that helped us move on.

Donald, who completed a semester as a traditional day student before switching to the evening AHEAD program, described the difference he observed in the AHEAD program compared to his day student experience:

I remember stepping into that first AHEAD class. The first time we had presentations in that class, I said, "Wow, I'm in a different league." It was a totally different league from the day classes I had been in, which were mostly with students straight out of high school. Not really as serious as all the people in the AHEAD Program. The cool thing was my final GPA for all four years was 3.85. Which was, for me, really exciting because I continued to push myself because of the cohort and the work groups I was in.

Working alongside other people that do great work pushed me to do my personal best. Dana explained how her classmates influenced her decision to pursue a bachelor's degree even though she had no initial intention to do so:

We all just pushed each other to do our best and we enjoyed the time together. We held each other accountable and we expected the best in each other and we delivered. We all

talked while we worked on projects together...and we just started talking about wanting to do more.

**Personal desire to continue learning.** Some participants were motivated to pursue a baccalaureate degree because they had developed an interest in learning while enrolled in the AHEAD program. Edward's decision to pursue a four-year degree was influenced more by a personal desire to continue learning than from the interactions with his peers. When he was almost finished earning his associate's degree, he revealed that he was not ready for his college career to be over:

The intensity and pace of the program, I mean, it's just that we had been moving so fast and I really had my steam up for learning...and it was just that I couldn't imagine that it was all coming to a halt. I felt like I had just gotten going. I felt like I was just really getting warmed up at the end and I wasn't ready to quit.

Similarly, when asked what influenced Daniel's decision to pursue a four-year degree, he stated:

I would honestly say that I love learning and I love education and I would probably be a full time college student if it paid. I was doing something that I liked and doing it with people that I liked. That made a big difference.

Brian realized halfway through the AHEAD program that he wanted his learning experience to continue:

I loved the experience I had at Pellissippi and wanted to continue it for two more years. Halfway through the AHEAD program, I thought, I want to go on and do this, and thought very strongly about going on for my Masters. Going back and getting that four-year degree was something personally I wanted. I really wanted to achieve that.

## **Social Integration**

Social integration refers to relationships with peers, interactions with faculty outside of class, and extracurricular activities (Tinto, 1993). While enrolled in the AHEAD program, participants indicated that time spent with peers and interactions with faculty helped them to feel socially connected.

**Peer relationships.** Participants indicated that time spent with peers, both inside and outside of class, created a sense of belonging and allowed strong bonds to form. Roger reported that he liked getting to know his classmates and instructors:

I really liked the pace, and being in a cohort, and being with the same people on a consistent basis...I even liked being with some of the instructors we had multiple times. I liked just getting to know everybody.

Likewise, Beth spoke fondly about the time she spent with her classmates:

We would have get-togethers and study sessions every week. We called them our pizza parties. If we were working on a big project, or had an exam coming up, whatever it may be, we met as group.

Joe reflected on similar social/study gatherings with some of his classmates:

I remember we would have our own group meeting on Wednesday night, or if it was an exam we would meet on Friday, helping each other prep for the exam the next day. You develop new friendships along the way, which in some cases are friendships for life because they are in this with you.

Jody explained that she still keeps in touch with the people she bonded with in the cohort:

I'm still friends with some of the people. After we've graduated we still keep in touch, some more than others. Some are Facebook friends, and with others we meet, go to dinner, or have lunch.

**Faculty interaction.** Study participants reported that interaction with faculty also helped them engage and feel connected. Having the same faculty member for several different courses allowed participants' to develop a sense of familiarity and be at ease in the classroom. Roger described:

I think the faculty took more of an interest in us because we did have the same instructors multiple times...the interaction with them was excellent. For someone that really did not like school ever, I found myself really excited to come to class.

Nathan had similar insights:

You get to know the professors. You learn quickly what they expect of you because they are in the classroom with you for many several hours, not just an hour. Sometimes we even had the same instructor multiple times a week, depending on how the classes would fall.

Some participants were surprised by the qualifications and dedication of the faculty at PSCC. Brian entered the AHEAD program skeptical of the level of instruction he would receive at a community college. He explained how his opinion changed:

I was very pleasantly surprised with the faculty. Very good teachers. Throughout, I really was impressed. They were willing to put in the extra time even after class, to discuss either the subject matter, or just to chitchat. I met some very interesting people there.

## **Academic Integration**

Academic integration refers to discussions with faculty, perceived intellectual development, and student perceptions of faculty concern (Tinto, 1993). Participants indicated that the AHEAD program allowed them to fully experience academic integration in all three of these areas.

**Discussions with faculty.** Participants explained that discussions with faculty helped them to feel academically engaged. Connecting class topics across courses was one example of how faculty were able to accomplish this. Jody explained:

Each class that we took built on to the next class. I felt like the management classes really built on each other. Stuff we learned in the very beginning, we talked about the whole time. Multiple professors mentioned it. They were still bringing up the same topics, same ideas, same things. I think it was really helpful to see how it all flows together and how that would work in the outside world, how it pertains to everything.

**Perceived intellectual development.** Participants reported that the number of hours spent studying with peers and discussing course topics assisted their intellectual development, which in turn increased their level of self-efficacy in regards to academics. Brian explained how much he enjoyed the in-class discussions:

You could hear people talking and discussing subjects. People would speak up. We had good, lively discussions in a lot of classes. It opened everyone up to talk more and to give their thoughts and opinions about things.

Donald really appreciated the practical application of the course material and the weekly discussions it spurred with classmates:

We were doing this for our career. We were taking everything that we were learning and we were all taking it back to work every day and using it and coming back the next week and saying, "Hey, I tried that this week and it went like this." Yeah, that definitely helped me academically for sure.

**Faculty concern.** The amount of concern faculty expressed for their success also increased participants' desire to excel beyond earning an associate's degree. One participant described:

You could see that the professors wanted you to succeed. You could see it in the way that they were teaching the classes and the information they were sharing with you, the stories they shared about their experience.

Nathan appreciated the concern of the AHEAD faculty and commented on its influence in choosing a four-year institution:

I wanted something similar to AHEAD and caring instructors was a part of that. But you can't get that at every institute, as a lot of people will find out. You may go to the next institute and not have the same type of relationship or guidance from the instructors.

### **Academic Momentum**

Academic momentum refers to earning a significant number of college credits, 10 or more, during the first calendar year of enrollment (Calcagno et al., 2007). The AHEAD program provided an opportunity for participants to complete more than 12 credit hours within one semester while continuing to work full time. Participants indicated that the compressed schedule and curriculum structure of the AHEAD program were key features that helped them persist to degree attainment.

**Compressed schedule.** The compressed schedule of the AHEAD program allowed participants to complete courses at a fast pace. Becoming familiar with a compressed schedule during associate's degree attainment eased the transition to four-year institutions that offered programs with a similar format. Because several four-year institutions located near PSCC offered programs similar to AHEAD, participants were able to continue the same academic momentum while pursuing their baccalaureate degree. This was very influential in participants' decisions to complete a four-year degree. When asked what influence a compressed schedule had in the decision to pursue a baccalaureate degree, Joe explained:

It was huge. With a traditional associate's degree you're two and half years in, really, when you look at it. For me to be able to knock it out in 16 months was perfect. That's why I chose to go on for my bachelor's at a 14 month program. In 30 months you're done, boom...Four-year degree in under three years.

Another participant had similar feelings and stated, "I have the end in sight. It's not going to take forever. I'll have the same degree I would have gotten if I had gone there for the four full years." Jody wanted to finish as soon as possible to be able to spend time with her children. She explained, "My oldest son will be graduating high school soon. I wanted to be done as soon as I could in order to enjoy the time I have left with kids at home."

**Curriculum structure.** For some participants, it was the structure of the curriculum in the AHEAD program that made it possible to complete a number of courses while juggling a full time job and familial responsibilities. Donald explained how the structure of the course load made it possible for him to complete his associate's degree:

I was in a management position, married, and working 60 plus hours a week. I had a career goal I was trying to accomplish as quickly as possible. Being able to complete



more classes in a short amount of time was big for me. But I wasn't going to be able to focus on tons of classes at the same time. The nice thing about the AHEAD Program was it wasn't five or six classes all stacked on top of each other. At most we only had two classes at a time.

Likewise, Anna reported that a traditional course load of four to five simultaneous classes would have been too much to focus on:

Even though we had a heavy workload, the fact that you only had two classes to concentrate on made it more appealing, because it's just less to focus on. When you have so much in your personal life, trying to focus on four or five classes at one time just would have been daunting. Having just two at a time to deal with, even in a condensed timeframe, was appealing.

The structure of the AHEAD program course load not only fit Edward's work schedule but suited his personal learning style as well:

It fit my work schedule so perfectly...it was really the only option open to me for college. On top of that I really enjoyed the accelerated pace of it because I'm so ADD. We were just doing two classes at a time every five weeks as opposed to a normal semester where I might have been taking five classes at a time for 15 weeks. That seems like it would have been much more difficult for me...I really enjoyed the concentration and the fast pace. It suited my learning style really well.

## **Question 2: What Specific Aspects of a Curricular Learning Community Influenced Graduates to Complete a Baccalaureate Degree?**

Individual interviews with participants revealed four specific aspects of the curricular learning community that had some influence on baccalaureate degree attainment. These

included peer support and involvement, time spent with peers, interaction with faculty, and a compressed evening schedule. Because AHEAD was based on a cohort model, participants enrolled in the program as one group and completed all courses together. This structure allowed participants to establish academic and social support networks with peers and faculty members, and experience high levels of participation and engagement. These benefits have been commonly associated with curricular learning communities (Crisp & Taggart, 2013).

### **Peer Support and Involvement**

Peer support and involvement were influential to pursuing a baccalaureate degree by 13 of the 15 study participants. This is congruent with the findings of Kuh et al. (2006), who found peer support and peer involvement to be key factors for increasing student engagement and persistence. Participants spoke repetitively about the importance of the support they received from their peers. When asked how much peer group support had influenced the decision to obtain a baccalaureate degree, Dana reported:

It had everything to do with it. I really think if I had went alone and not been in the AHEAD program, I don't think I would have went on to get the bachelors degree. I don't think I would have went on to King University. It's like people losing weight. They do better when they get into a program with people who will hold them accountable. I think it was the same thing with our group.

Several participants used the word "family" to describe the relationship with their classmates.

After a house fire left her and two young daughters homeless, Beth stated:

A lot of my classmates walked through it with me, right by my side. They were encouraging me and everything. We were just like a little family. They were right there and never once did they walk away. If I needed help with something, it was like, okay,

let's help you out. We can do this. Don't give up. You've come this far...So when I started looking at four-year colleges I wanted to go with my group because I think I would've felt alone. You get this little togetherness, and I think I would've felt like I was a loner or something. I don't know if I would have finished. I probably would've talked myself out of it.

Roger also referred to his classmates as “family” and described how the structure of the AHEAD program contributed to that:

I think being involved in the cohort and having the same people around you all the time, you became a little bit tighter than just normal classmates. You became involved in people's lives, more so than you normally would. I know with a lot of the teamwork activities, there were nights when we were here four or five nights a week if we were working on a big project. You really spend more time with some of your team members than you do with your family. I think we became a lot closer than we would have with regular classmates in a traditional course.

Jack was one of eight graduates from his AHEAD class that transferred to King University together. He attributed peer support and involvement as key factors in his group's decision to continue their education:

I can tell you this. It got us to the next level. That teamwork, that spirit, that commitment to each other, is what got us to the next level to go to King. I think that if we had not had that relationship together, then we would not have all gone.

### **Time Spent with Peers**

Study participants who transferred to a four-year institution with one or more of their classmates from the AHEAD program indicated that time spent with peers, both inside and

outside of class, built a level of academic trust that factored into their decision to earn a four-year degree. This aligns with Pascarella and Terenzini (1983), who found that academic integration was important to commuter student persistence. Anna indicated how time spent with her classmates helped her get through difficult classes, which influenced her decision to pursue a four-year degree:

Our particular group spent a tremendous amount of time together. We met at least once or twice a week. There were some times we would spend three and four hours together, a couple of times a week working on projects, difficult classes, those kind of things. There was a lot of support in our team. It was a real bonus that most of us were going on together to Bryan College.

Jody, who transferred to Tennessee Wesleyan College with four of her classmates, described:

After you're with somebody for that long, when you're in classes that many times together, you know who you can depend on. You learn to trust these people. You know who you can go to, who would probably have a solution for you to bounce ideas. I knew the people I could trust were going to Tennessee Wesleyan. Knowing we were going to be in the same program together really sealed it.

The time spent with classmates gave Stacy a feeling of camaraderie:

When I got into the program, the camaraderie that you have with meeting new people and being able to grow together as you're going through the program...that was really encouraging and helped me make a decision towards going for the Bachelor's cohort program. I was able to talk three of our cohort buddies over at Pellissippi into going too. That played a big factor.

## **Interaction with Faculty**

Kuh et al. (2006) found interaction with faculty to be important to student engagement and persistence. Participants indicated that access to the faculty in the AHEAD program was significant to their persistence. Joe described his experience:

I thought the class size was excellent because the professors were always available. You could even meet with a professor if you didn't have that professor's class that day...Email, phone, text, whatever, I felt that there was a lot of good access along the way.

Participants also reported being more engaged because faculty members were able to determine their capabilities and challenge them accordingly. Daniel explained how that happened:

I loved the fact that you had a lot of the same professors that you were already familiar with. You knew what their expectations were and they knew what you were capable of...they really knew what you were capable of and how far to push you.

Eight of the participants cited discussions with faculty as influential in their decision to pursue a four-year degree. Nathan explained how it contributed to his decision:

Just the instructors having the belief in you that you can do it...the little pep talks and the stories that they have been in the workforce and have done this. They went back and got degrees while they were working too. It helped me believe I could do it.

Similarly, Lisa attributed her experience with the faculty as influential in her decision to pursue a baccalaureate degree:

We received encouragement throughout the whole program while here at Pellissippi. I never had a doubt that I could get my bachelor's degree based on the feedback that I got

from my professors. They made me feel like I can do this, and I want to go ahead and get it done as soon as possible.

### **Compressed Evening Schedule**

According to participants, being able to attend classes during the evening hours was significant in their decision to obtain a four-year degree. Most participants had full time jobs and were unable to attend classes offered during the day, which made evening program availability a crucial component of pursuing a baccalaureate degree. After earning his associate's degree at PSCC, Daniel stated, "I was looking for something that was friendly to working adults and had a night time structure similar to the program at PSCC." Similarly, Brian reported, "We wanted a program that was somewhat structured like the AHEAD program. We all were looking at that same schedule, where we could go to classes after work during the evenings in an accelerated type program." Anna spoke at length about the importance of evening programs in regards to her options for furthering her education:

I don't think I ever would have pursued my four-year degree to be completely honest.

Even though I wanted to very bad, without that night program, I wouldn't give up a job that I was secure in and had already made into a management role. To give all of that up to pursue a degree would have just been financially impossible for me.

A compressed evening schedule was a necessity for Jody to reach her educational goals:

If I would have done a traditional day program, there's no way I would've went on to do my bachelor's because of the time it would have required of me. If I had a traditional load of say four or five classes, there's no way I would have time with work and kids playing sports and band. I work 45 to 50 hours a week, so there's no way I could have fit that much homework and that much actual seat time into my schedule. Plus, as a day

student, even if I had doubled up classes and took as many as I could, there's still no way I could have done it as fast as I did.

This finding agrees with Tinto's (2002, 2004) research that described student success as a shared responsibility between the institution and the student. He posited that shared responsibility happens when students have the necessary intentions and commitment to succeed, and institutions provide an environment for them to engage academically and socially. In this case, participants had the necessary intentions and commitment to pursue a baccalaureate degree and the institutions provided a favorable environment that allowed them to achieve their goal.

### **Question 3: How did the Identified Aspects Influence Graduates' Decisions to Pursue a Baccalaureate Degree?**

Data gathered from participant interviews indicated how the identified aspects of engaging in a curricular learning community contributed to their decision to a baccalaureate degree. Participants identified five specific areas including strong bonds with peers, sense of belongingness, self-efficacy, faculty concern, and shortened time to completion.

#### **Strong Bonds with Peers**

Participants spoke repetitively of the strong bonds they had formed with their peers and the importance those relationships had in their decision to pursue a baccalaureate degree. Brian characterized his relationship with his classmates:

We were just so tight and there was such support. When I say support, just the conversations you have can really help if you're struggling, and your life gets in the way, and you have all these things happening. As a group, we'd talk about those things. It's like, well, I'm not the only one dealing with life and school, other people have it harder

than I do. That really does help. We really support each other. We made a pact that we were going to move ahead together to get our four-year degree.

Daniel transferred to the same four-year institution as eight of his classmates from the AHEAD program who he described as a “second family.” When asked if that influenced his decision to continue to his education, Daniel reported:

It was very attractive that the program was structured similarly to the AHEAD program and that I would get to be with the same group of people. That we already knew that we worked well together and, by this time, were already kind of like a second family, definitely influenced that decision. I said, "Come on guys. We're going to do this and do it together like we are now."

When Jack enrolled in the AHEAD program, he was undecided about earning his four-year degree. However, he described how the relationship with his classmates influenced him to change his mind:

Because all of us wanted to help each other and keep the momentum that we had established in the AHEAD Program, we all committed to going together to King. It was a no brainer for me. I thought I'm not getting left behind. I'm going whatever it takes.

### **Sense of Belongingness**

Tinto (1993) found that through sufficient academic and social interactions students would gain a sense of belongingness, which was important to student persistence. Participants indicated that a sense of belongingness was an influential factor in earning both an associate's degree and a baccalaureate degree. Because most participants had not been in school for several years before enrolling in the AHEAD program, they reported feeling uncomfortable with the thought of being in class with other students who were significantly younger. Jody explained her



uneasiness as follows:

I did hesitate quite a bit. I had looked into it for about eight years. In the beginning, I hesitated because of the age barrier. I don't want to sit in a classroom with 18 year olds. That's not to say that all 18-year olds aren't mature, but the maturity level of most 18-year olds is not something I want to sit next to during a class. I'm there to learn. If I'm going to put in all this extra time then I want it to actually be used, and not just be sitting there listening to chatter all around me, and the things that come along with younger students.

Beth echoed similar sentiments:

I was nervous because I didn't know if I was going to be the oldest person in the class or something like that. The biggest nerve racking thing was thinking I was going to be in there with a bunch of younger people and there was going to be nobody in there that maybe I could relate to.

Donald's sense of belongingness came from being in class with people that were dealing with similar work and family situations. He explained:

It was good. It was really good. Having like minded people that weren't straight out of high school...most of us had careers and we had families and we were able to bond and support each other. If you were struggling a little bit somebody else would help pick up the load, help you out a little bit. Really, I didn't ever feel like dropping out...it was never anything I thought about. I don't even know if I remember anybody dropping out of the cohort that I was in.

Although being in class with other students that were similar in age and situations was mentioned frequently, it was less important to some participants. While Dana liked being in

class with people who were closer to her own age, she appreciated the differences in age between herself and some of the younger members in her AHEAD group:

I really think that having the older set of folks there helped me a whole lot. But I really think it helped the younger kids there too. In the same cohort they can see the older folks were putting forth the effort and had more life experiences than the younger crowd. I think they all learned a lot. But at the same time the younger folks brought a lot of things to the table too. They have a lot of different experiences as well, just in a different genre. I think, even with the younger folks, we all became immediate friends.

### **Faculty Concern**

**Encouragement and support.** Several participants mentioned how much the encouragement and concern of faculty in the AHEAD program contributed to their decision to transfer to a four-year institution. Participants indicated how important it was to know that professors believed in their ability to succeed. Beth explained:

You felt like even if you were struggling a little bit, the faculty wanted to put in the extra time and effort to answer questions you have. There's that support there. You know what I mean? You felt like no matter how tough the class was the professors were going to help you understand it.

The availability and willingness of faculty to help them understand difficult concepts was particularly significant. Jody recalled a special instance when her accounting professor visited her workplace:

He came to where I worked and brought me extra problems to work on because I just wasn't grasping what we were doing. He told me I wasn't getting extra points for doing it, but I could practice and really get it down before the test.

**Utilization of teams.** Participants reported that AHEAD faculty members divided each cohort into teams at the beginning of the program and kept participants on the same team until the program was finished. Faculty then allowed the teams to work together on class projects and assignments. Participants indicated that the faculty's commitment to this practice increased the amount of cohesiveness that developed among the teams, which elevated their level of engagement. For Jack, the AHEAD faculty's use of teamwork in the classroom was a key factor in his engagement. He compared his experience with the faculty of the AHEAD program with the faculty at the four-year institution where he transferred:

The faculty at Pellissippi was wonderful. I think there was a huge difference between Pellissippi's program and my four-year school...they had some great instructors there and the teaching was good, but they did not reinforce the teamwork spirit like the faculty at Pellissippi. I would say I learned 10 times more at Pellissippi.

When asked what appealed to her most about the AHEAD program, Lisa reported that her team was her favorite part:

It was our particular group of five that we went through the whole program with. I couldn't have asked for a better group. We really understood, right off the bat, how each of us worked, and who was willing to do what part to make it the most successful. The curriculum was really good, but I would say, it was the team.

Anna spoke of the loyalty and dedication she developed for her team:

Having the same team format throughout the program, you formed a bond with those four or five people. You wanted to do your very best on those projects, because you didn't want to let those other people down.

## **Self-efficacy**

Nine of the 15 participants reported being unsure of their ability to succeed in higher education at the time they enrolled in the AHEAD program. Participants attributed their lack of self-confidence to various pre-college experiences such as poor academic preparation, lack of family support, and age. Lisa, a 28-year old working mother, explained, “I was really worried because I had been out of school for over 10 years.” However, after their experience in the AHEAD program, all nine participants indicated an increase in self-efficacy, which contributed to their decision to pursue a baccalaureate degree. When asked how participating in the AHEAD program influenced him, Brian stated, “We all had such confidence. I think there wasn't one of us that doubted that we would get our four year degree. We were all going to stick together and push each other.” Anna, who was homeschooled through high school, was uncertain if she would be able to keep up with the other students when she enrolled in the AHEAD program. At the start of the program, she intended to get only an associate’s degree, but later decided to pursue her baccalaureate degree:

The AHEAD program helped me overcome a lot of self-doubt...that I was not intelligent enough to keep up with people that went to college. It helped me push past a lot of that. It probably brought me out of my shell some, because it forced me to talk in front of people and engage with other people.

## **Shortened Time to Completion**

Most participants reported shortened time to completion as influential in their decision to continue their education. After successfully completing the accelerated pace of the AHEAD program, participants indicated their desire to earn a baccalaureate degree in a similarly structured program. Lisa explained what she was looking for in a four-year institution:

I wanted the same structure that I had at Pellissippi State. I definitely wanted more of the fast track structure to make sure that it was something that I could complete in a reasonable amount of time. I wanted to get through a bachelor's program completely within a four-year time span rather than 8 or 10 years if I would have taken traditional courses.

Similarly, David stressed the importance of a shortened timeframe and evening structure:

I wanted something that was friendly to working adults with a nighttime structure. I liked the fact that it wasn't going to be stretched out and that I was not going to have to go to school forever. The accelerated part was very important to me.

Jody wanted to complete her baccalaureate degree before her children started college, which meant transferring to an accelerated program in order to do so:

I wanted my kids to see that yes, I have teenage children and I have a full-time job, but I'm still going to make sure I get this done. I wanted them to see that no matter what your boundaries are, what your limits are, you can still do it. My goal was to be done with school before my oldest child graduated high school. I graduated with my bachelor's when he was a junior.

For Beth, a shortened time to completion meant she could provide a better standard of living for her family sooner rather than later:

I wanted something that was along the lines of what I went through at Pellissippi State in 16 months. The accelerated pace was very important. In my mind, I was thinking the sooner I could finish the sooner I would be able to provide better for my family.

## **Summary**

This chapter presented participant profiles and answered the three research questions posed in Chapter III. The first question asked how engaging in a curricular learning community influenced the baccalaureate degree attainment of community college career and technical graduates. Four themes emerged from the data gathered during participant interviews including student engagement, social integration, academic integration, and academic momentum.

The second question involved the specific aspects of a curricular learning community that influenced graduates to complete a baccalaureate degree. Four specific aspects were presented. These included peer support and involvement, time spent with peers, interaction with faculty, and compressed evening schedule.

The third question asked how the identified aspects of the curricular learning community influenced the participants' decision to pursue a baccalaureate degree. The specific aspects were influential in five areas including strong bonds with peers, sense of belongingness, self-efficacy, faculty concern, and shortened time to completion.

Excerpts from the individual interviews were presented to capture the voice of the participants and support the findings. The next chapter provides conclusions drawn from the study, implications for practice and policy, and considerations for future research.

## **Chapter 5: Discussion and Recommendations**

### **Introduction**

This chapter presents a summary of this study's findings, followed by a discussion of the key factors that influenced the participants' baccalaureate degree attainment. The first section contains a review of the purpose of the study, the research questions posed, and the methodology used to conduct the study. The findings are discussed from the perspective of how these findings confirmed or disconfirmed existing theory. The chapter concludes with an overview of the study's limitations, significance, and implications for policy, practice, and future research.

### **Purpose of the Study**

The purpose of this study was to identify how engaging in a curricular learning community influenced the baccalaureate degree attainment of community college students majoring in career and technical fields. In addition, this study examined how the identified aspects of the learning community influenced the participants' decisions to continue their education beyond an associate's degree.

### **Research Questions**

The research questions addressed in this study consisted of the following:

1. How does participation in a curricular learning community influence the baccalaureate degree attainment of community college career and technical graduates?
2. What specific aspects of a curricular learning community influenced graduates to complete a baccalaureate degree?
3. How did the identified aspects influence graduates' decisions to pursue a baccalaureate degree?

## **Methodology**

This study was conducted using a qualitative research methodology to fully capture, in rich detail, the experiences of the participants studied (Merriam, 2009). The institution selected for this study was Pellissippi State Community College (PSCC), located in Knoxville, Tennessee. Participants included career and technical graduates from the Accelerated Higher Education Associate's Degree (AHEAD) program, an evening program offered by PSCC that targets working adults.

The credibility and validity of this study's findings were enhanced through the triangulation of various data sources including a pilot study, individual interviews from a cross section of seven different AHEAD cohorts, exit surveys, and researcher field notes. Pilot study data were utilized to revise and improve the interview guide, and themes that emerged from the individual interviews were found to align closely with the responses from the graduate exit surveys.

Data analysis included identifying, coding, categorizing, and labeling the primary patterns found in the interview transcriptions (Miles & Huberman, 2014). Dedoose, a qualitative data analysis software program, was used to facilitate the coding process. Following each interview, the digital recording was transcribed, coded, and analyzed to find patterns and common themes. Excerpts from the transcripts were presented to support each theme.

## **Summary of Findings**

Participants identified four key components of curricular learning communities that were influential in their decision to pursue a baccalaureate degree. The first component, student engagement, refers to the amount of time and effort students invest in their studies and other activities, and the extent of organized learning opportunities provided by the institution (Kuh,



Kinzie, Schuh, & Whitt, 2005). While enrolled in the AHEAD program, participants attended eight hours of class each week and spent a considerable amount of time outside of class working on assignments and group projects with classmates. These collaborative learning activities enhanced student/faculty interactions and allowed student work groups to form, thus, increasing the level of student engagement among participants. In addition, participants increased their level of academic performance to match or exceed that of high performing classmates. The ability to achieve a high level of performance added to the confidence of participants and influenced their decision to pursue a four-year degree. Participants also reported that engaging in the AHEAD program sparked an interest in learning, which fueled their desire to continue their education. These factors contributed to a high level of student engagement and influenced the persistence of participants to baccalaureate degree attainment.

The second component, social integration, involves time spent with peers and discussions with faculty outside of the classroom (Tinto, 1993). Meeting frequently outside of class allowed participants to socialize and get to know one another. This time together fostered a sense of belongingness and assisted in the formation of strong bonds within the group. In addition, participants found that a frequent amount of faculty interaction contributed to their sense of belonging and ease. Because faculty members taught several courses in the program, participants were able to develop a sense of familiarity with faculty members, which allowed them to feel at ease. These factors contributed to a feeling of connectedness among participants and influenced their persistence. This concurs with the earlier research of Tinto (1993) who found that students gained a sense of belonging through social interactions, and thus, increased persistence.

Academic integration, the third component, refers to a perceived increase in intellectual

development and faculty concern (Pascarella & Terenzini, 1983; Tinto, 1993). Participants identified in-class activities and discussions with classmates and faculty as important to improving their academic self-efficacy. Participants were often able to take what they learned in class each week and apply it directly to their jobs. They would then come back to class the next week and discuss the results with classmates. Participants found that these discussions increased their perceived intellectual development. Participants also reported that faculty members connected class topics across courses, which helped them understand how principles learned in one class could have practical application in another class. In addition, participants indicated that the AHEAD faculty's commitment to utilizing teams throughout the program influenced their persistence. Faculty members placed participants in teams with four to five other students at the beginning of the program and kept them on the same team for the program's duration. This practice increased team cohesiveness and fostered an environment that allowed strong bonds to form among participants. Participants also found faculty concern, which was expressed through encouragement and support, influential to their persistence. Faculty members encouraged participants to do their very best and supported their interest in continuing their education beyond the AHEAD program.

Lastly, participants indicated that the structure of the AHEAD program provided the opportunity to gain academic momentum, which refers to earning a significant number of college credits, 10 or more, during the first calendar year of enrollment (Calcagno et al., 2007). Both the compressed evening schedule and curriculum structure of the AHEAD program allowed participants to earn an associate's degree in 16 months while maintaining full time employment. The compressed evening schedule made it possible for participants to earn an associate's degree significantly faster than the average 30 months of traditional day students, which influenced their

persistence to degree attainment. After successfully attaining an associate's degree in the AHEAD program, participants sought out similar evening programs at nearby four-year institutions to pursue a baccalaureate degree.

## **Discussion of Findings**

### **Research Question 1**

Research question 1 examined how engaging in a curricular learning community influenced the baccalaureate degree attainment of community college students majoring in career and technical fields. Four areas were found to be influential to participants' decisions to pursue a four-year degree including student engagement, social integration, academic integration, and academic momentum.

**Student engagement.** Participants indicated that the AHEAD program provided them with the opportunity to have meaningful interactions with classmates and faculty. Through class activities and discussions, participants reported feeling challenged by faculty and involved with classmates. The collaborative nature of the activities further enhanced these interactions, resulting in an engaging learning experience. This affirms the research of Kuh et al. (2006), who found student and faculty contact and active collaborative learning related to high levels of student engagement.

In addition, participants in this study reported a feeling of familiarity with classmates and faculty that increased their desire to participate in in-depth discussions. The amount of time spent in class with the same group of people contributed to their level of comfort and provided an environment that encouraged academic and social networks to form, thereby increasing engagement (Crisp & Taggart, 2013).

**Social integration.** Findings from this study revealed that community college students

were able to engage in and benefit from social integration. According to participants, the hours spent with their peers week after week allowed them to develop close relationships. From these relationships, strong bonds and a sense of belongingness developed. Participants indicated that the relationship with their peers influenced their decision to pursue a baccalaureate degree and, in some cases, to attend the same four-year institution as other classmates. Although some participants were influenced less by this than others, all participants acknowledged that peer relationships had played at least an indirect role in their choice to further their education. These findings challenge Braxton et al. (1997), who posited that commuter students did not have time to participate in activities that would foster social integration since they lived away from campus and had multiple demands of work and family.

**Academic integration.** The majority of participants in this study were first generation college students and had only basic academic preparation. Some participants were homeschooled and had no idea how a classroom setting actually operated, while others were simply not good students in high school and lacked study skills. These pre-college experiences caused participants to be uncertain of how successful they were likely to be in college. However, participants indicated that participating in the AHEAD program helped them overcome feelings of inadequacy and increased academic self-confidence through collaborative learning and in-depth discussions with classmates and faculty. Further, these interactions with classmates and faculty members were found to increase participants' perceptions of intellectual development and perceptions of faculty concern, key components of academic integration (Pascarella & Terenzini, 1983). The combination of these activities helped participants gain the needed confidence to pursue a four-year degree. This is congruent with the research of Pascarella & Chapman (1983), who found academic integration important to student persistence at commuter

institutions.

**Academic momentum.** This study found that academic momentum, earning a significant amount of credits in a short amount of time, was very influential to participants when deciding to complete a baccalaureate degree. Because participants were working adults with familial responsibilities, they had a limited amount of time to devote to education and wanted to complete their schooling as soon as possible. The structure of the AHEAD program allowed participants to finish an associate's degree in 16 months, much less than the average 30 months of traditional day students. In addition, the structure of the curriculum allowed participants to focus on only two classes at a time over a five-week period. Because they had full time jobs and familial responsibilities, participants found two classes at a time to be more manageable than a traditional full time schedule of four to five classes over a 15-week period. Participants reported that finding a four-year institution with a program structure similar to the AHEAD program greatly influenced their decision to pursue a baccalaureate degree because they could continue to earn credits at an accelerated rate. This finding adds to a growing body of research, which found that helping students earn credits quickly was correlated with degree attainment (Adelman, 2006; Calcagno et al., 2007; Golrick-Rab, 2007; Kolenovic et al., 2013).

## **Research Question 2**

Research question 2 investigated what specific aspects of the curricular learning community influenced participants to attain a baccalaureate degree. Participants identified four aspects of the AHEAD program that were influential to their decision to pursue a four-year degree. These included peer support and involvement, time spent with peers, interaction with faculty, and a compressed evening schedule, common benefits associated with curricular learning communities (Crisp & Taggart, 2013; Kolenovic et al., 2013; Tinto, 2004).

**Peer support and involvement.** As a cohort based model, AHEAD students took all of their courses together and were the only participants in the program. This structure provided an opportunity for participants to get to know one another and establish close relationships. Participants described peers as “family” who encouraged them not to quit during difficult periods of the program and held them accountable to group expectations. Participants found these relationships instrumental to their persistence, which agrees with similar findings of Kuh et al. (2006). This finding is also congruent with the research of Tinto and Love (1995), who found that learning communities provided an opportunity for students to develop a support network of peers, which facilitated integration and transition to college.

**Time spent with peers.** Hodge et al. (2001) found that the close-knit atmosphere of learning communities promoted access and interaction with other students and faculty. In this study, time spent with peers was found to influence the decision of participants who transferred to a four-year institution with one or more of their classmates from the AHEAD program. Participants spent eight hours in class together each week and met multiple times outside of class each week to work on projects or study together. This frequent contact built a level of trust between participants, which allowed them to openly discuss class topics. Participants indicated that transferring to a four-year institution with trusted peers was an important factor in their decision to do so.

**Interaction with faculty.** According to participants, ease of access to the faculty in the AHEAD program was significant to their persistence. Because class sizes in the AHEAD program consisted of 30 students or less, faculty had more time to spend with individual participants. As a result, faculty members were able to gain an understanding of participant strengths and weaknesses. This knowledge allowed faculty members to tailor instruction

techniques to best suit the needs of individual participants. Consequently, participants were able to maximize their academic potential, which led to an increase in self-confidence. This supports the work of Bailey and Alfonso (2005), who pointed out the importance of designing the classroom experience to promote more meaningful interaction between commuter students and teachers as a strategy to increase engagement.

**Compressed evening schedule.** Participants reported that the availability of a compressed evening schedule made it possible to earn both an associate and baccalaureate degree. Participants had full time day jobs and familial responsibilities that prevented them from enrolling full time in traditional day programs. Although some participants had previously enrolled in college as part time day students, they dropped out due to a lack of academic progress over the course of several years. This exemplifies the findings of Bailey et al. (2004), who found that more than two-thirds of career and technical students at two-year institutions dropped out after having completed a year or less of coursework over a 5-year period. Participants indicated that in order to obtain a degree, they needed an evening program that fit their work schedule. Otherwise, they would never have attempted to earn a college degree.

### **Research Question 3**

Research question 3 examined how the identified aspects of engaging in a curricular learning community contributed to participants' persistence to baccalaureate degree attainment. Participants identified five benefits of participating in the AHEAD program that influenced their decision to pursue a four-year degree. These included strong bonds with peers, a sense of belongingness, faculty concern, self-efficacy, and shortened time to completion.

**Strong bonds with peers.** The strong bonds formed with peers significantly influenced participants to pursue a baccalaureate degree. Of the 15 study participants, 14 transferred to the

same four-year institution with one or more classmates from the AHEAD program. Participants found that they had developed strong bonds of support and friendship with classmates, which helped them persist during difficult periods while in the AHEAD program. Participants reported that pursuing a baccalaureate degree with their pre-established support group seemed less daunting than attempting it alone, which proved to be influential in their decision to transfer to a four-year institution. Further, participants decided to pursue a baccalaureate degree with one or more of their peers even though they intended to attain only an associate's degree upon enrollment in the AHEAD program. This finding supports the work of Tinto (1993), who argued that students' modified their intentions and commitments based on their experiences with social and academic systems.

**Sense of belongingness.** Meaningful academic and social interactions have been found to help students gain a sense of belongingness, which is important to student persistence (Tinto, 1993). Participants found that attending classes in the AHEAD program with other working adults helped them feel a sense of belongingness. Although participants reported being hesitant to enroll in college for fear of not fitting in with younger students, similarities in work and family situations allowed participants to relate to their AHEAD classmates in meaningful ways. Participants found that maintaining that sense of belongingness was an important factor in their decision to complete a baccalaureate degree.

**Faculty concern.** Participants found faculty concern important to their persistence in two areas, which included encouragement and support, and utilization of teams. First, participants reported that the encouragement and support of AHEAD faculty members made it possible for them to master difficult course topics. Participants indicated that faculty members were readily available to answer questions and openly expressed their belief in participants'



ability to succeed. Second, AHEAD faculty members were committed to utilizing student teams, which participants found important to their persistence. Faculty members kept the same students together on the same team throughout the program, which increased student cohesiveness and fostered the development of strong bonds among participants. As a result, participants developed a sense of loyalty and commitment to team members that influenced their decision to transfer to the same four-year institution together. While Pascarella & Terenzini (1983) found student perception of faculty concern important to two-year student persistence, this finding extends their work to include persistence to four-year degree attainment.

**Self-efficacy.** Participants realized an increase in self-efficacy over the duration of the AHEAD program, which influenced their decision to complete a baccalaureate degree. Before enrolling in the AHEAD program, participants reported feeling uncertain in regards to their ability to be successful at the college level. Various pre-college experiences contributed to participants' lack of self-confidence, including poor academic preparation, lack of family support, and age. However, participants found that self-efficacy increased while in the AHEAD program through peer support, the practical application of course material, and frequent engagement with classmates. This finding builds on the research of Taylor et al. (2003), who concluded that "a preponderance of studies indicate that learning communities strengthen student retention and academic achievement" (p. iii).

**Shortened time to completion.** Shortened time to completion was found to be important to participants when deciding to continue their education. Participants indicated that work and family demands made a shortened time to completion necessary. Because participants had become accustomed to the compressed evening schedule of the AHEAD program, they wanted to continue their education at a four-year institution that offered a program in a similar format.

Several four-year institutions located nearby had similar programs that participants could choose from to obtain a baccalaureate degree. Participants reported that the ability to earn a four-year degree in a relatively short amount of time was influential their decision to pursue that option. This finding supports the research of Calcagno et al. (2007) and Kolenovic et al. (2013), who found that generation of academic momentum was associated with increased persistence and degree attainment.

### **Limitations**

This study was limited, in part, by the qualitative methodology used in data collection and analysis. As a qualitative study, the findings from this project cannot be generalized to a larger population. Instead, this study provided a contextual account of the curricular learning community experience as told by 15 graduates of Pellissippi State Community College. Researchers and practitioners working in other settings may find the insights from this study useful, but that decision will be left to them.

Further, although the researcher hoped to recruit an ethnically diverse sample, this study's 15 participants consisted of White males and females. The minority student population in the AHEAD program has averaged 10% to 15% since its inception, which is reflective of the general population in Knoxville, Tennessee. While multiple attempts were made to recruit graduates from ethnically diverse backgrounds via network sampling, Facebook searches, and personal phone calls, the researcher was unsuccessful. Therefore, this study was limited to only those perspectives offered by White graduates.

In addition, participants volunteered to be a part of this study once they met the selection criteria. As such, the study's sample included only the perspectives of those willing to share them. The perspectives of graduates less enthusiastic to share their experiences in the AHEAD

program were excluded from this study. Considering all these factors, this study could not be replicated in an exact manner. Even if the same researcher conducted the same study in a different time, or in a different place, there would be distinct differences in such a study.

### **Study Significance**

This study is potentially significant to the areas of research, practice/policy, and future research. In regards to research, this study contributes to the few examinations of how learning communities influence the persistence of career and technical community college graduates to baccalaureate degree attainment. Prior work in this area has focused largely on the persistence of four-year students (Cabrera et al., 1993; Pascarella & Chapman, 1993; Pascarella & Terenzini, 2005). Further, the few studies found in the review of the literature that examined the effect of learning communities on the persistence of career and technical community college students focused solely on two-year degree attainment (Calcagno, 2007; Kolenovic et al., 2013; McIntosh, 2012; Rini, 2010). Finally, this study revealed the importance of evening program availability to adult students' two-year and four-year degree attainment. As previous research points out, career and technical students are more likely to work fulltime and identify themselves as an "employee who studies" versus "a student who works" (Hirschy et al., 2011). Yet, this study presented an account of participants that were able to both work and attend college full time, ultimately resulting in baccalaureate degree attainment.

### **Implications for Practice and Policy**

The experiences of the participants in this study offer several implications for practice and policy. Although community college students live away from campus and often juggle work and familial responsibilities, findings from this study suggest that curricular learning communities can offer them the opportunity to experience higher levels of student engagement,

academic integration, and social integration, factors associated with increased persistence.

Community colleges need to provide an environment that encourages students to engage academically and socially with the institution. While previous research has found these factors to have a positive impact on two-year persistence, (Richburg-Hayes et al., 2008; Scrivener et al., 2008), findings from this study suggest that student engagement can also influence the four-year degree attainment of community college students. Therefore, curricular learning communities can be utilized as a strategy to improve the baccalaureate degree completion of two-year students.

Because many adults who maintain full time employment during the day cannot leave work to attend classes, it is important for institutions to establish evening programs that fit the work schedule of these individuals. Evening programs provide working adults with access to higher education that they would otherwise be denied. Findings from this study suggest that without evening program availability, working adults would be prohibited from pursuing postsecondary education due to work schedule conflicts. Consequently, in order to improve the degree attainment of this population, it is necessary for two-year and four-year institutions, both public and private, to offer degree programs at flexible evening hours that appeal to adult learners.

This study also offers implications for the structure and design of curricular learning communities that target career and technical students. Because career and technical students have been found less likely to reach degree attainment due to low completion of coursework (Bailey et al., 2005), curricular learning communities should be designed to establish a pathway for students to gain a significant amount of credits in a short amount of time. To accomplish this, institutions should develop curricular learning communities that utilize a compressed

schedule, which would allow quicker course completion and a shortened time to degree attainment.

### **Future Research**

This study presented a situated account of a curricular learning community experience as told by career and technical graduates of Pellissippi State Community College. This work examined how engagement in a curricular learning community influenced graduates' baccalaureate degree attainment and identified the specific aspects of the learning community that were important to participants. The context of the campus environment, a predominantly White, two-year institution, located in the Southern United States, undoubtedly shaped the perspectives of the participants in this study. Future research on this topic within varying campus, geographic, and demographic regions will yield new findings. Specifically, additional perspectives from ethnically diverse graduates could enhance future findings, which will require the intentional recruitment of African American, Asian American, and multiracial students to participate in related research.

From a methodological standpoint, this qualitative study focused on gaining an understanding of the perceptions of career and technical graduates who participated in a curricular learning community offered during the evening. Future research might include students majoring in academic fields that participate in curricular learning communities during the day. In addition, future research could investigate the number of career and technical graduates who obtain baccalaureate degrees without engaging in a curricular learning community as compared to those graduates who do. In this scenario, a quantitative approach may yield additional findings.

## **Summary**

This chapter presented a discussion of the study's key findings, as well as the study's limitations, significance, and implications for practice, policy, and future research. The first research question was: How does participation in a curricular learning community influence the baccalaureate degree attainment of community college career and technical graduates? The findings discussed for this question focused on four areas, including student engagement, social integration, academic integration, and academic momentum. The second research question was: What specific aspects of a curricular learning community influenced graduates' to complete a baccalaureate degree? The discussion for this question centered on four specific aspects, which included peer support and involvement, time spent with peers, interaction with faculty, and a compressed evening schedule. The third research question was: How did the identified aspects influence graduates' decisions to pursue a baccalaureate degree? The five major benefits participants experienced from participating in the AHEAD program were discussed including strong bonds with peers, a sense of belongingness, faculty concern, self-efficacy, and shortened time to completion. It is hoped that the stories of these participants will help to motivate institutional policy makers and administrators to closely examine the policies and practices in place that address the postsecondary education needs of working adults.

## **Appendices**

### **Appendix A: Pilot Study Recruitment Email**

#### AHEAD Graduates: Opportunity to Participate in a Research Study

Dear AHEAD Graduate:

I hope this email finds you well. I am conducting a pilot study in preparation of my treatise proposal and I would like to invite you to participate. I am interviewing AHEAD graduates from Pellissippi State Community College about their experience in the AHEAD program and how that may have influenced the decision to pursue a bachelor's degree. There will be two interviews lasting up to 45 minutes each and I can meet at a time and location convenient for you. If you know of anyone else who has finished their bachelor's degree from the AHEAD program please let me know so I can contact them as well.

I look forward to hearing from you!

Best Regards,

Denise Carr

Doctoral Candidate, University of Texas at Austin

dmcarr@utexas.edu



## **Appendix B: Treatise Study Recruitment Email**

### **AHEAD Graduates: Opportunity to Participate in a Research Study**

Dear AHEAD Graduate:

I hope this email finds you well. I am conducting a study in completion of my treatise proposal and I would like to invite you to participate. I am interviewing AHEAD graduates from Pellissippi State Community College about their experience in the AHEAD program and how that may have influenced the decision to pursue a bachelor's degree. There will be two interviews lasting up to 45 minutes each and I can meet at a time and location convenient for you. If you know of anyone else who has finished their bachelor's degree from the AHEAD program please let me know so I can contact them as well.

I look forward to hearing from you!

Best Regards,

Denise Carr

Doctoral Candidate, University of Texas at Austin

[dmcarr@utexas.edu](mailto:dmcarr@utexas.edu)

## **Appendix C: Consent for Participation in a Research Study**

### **Title: How Engagement in Curricular Learning Communities May Influence the Baccalaureate Degree Attainment of Career and Technical Students**

#### **Description of the research and your participation**

You are invited to participate in a research study conducted by Denise Carr. The purpose of this research is to examine how engaging in a curricular learning community influenced the four-year degree completion of community college students in career and technical fields, and, more specifically, what aspects of curricular learning communities contributed to student engagement and persistence. Your participation will involve two interviews with the principal researcher at a time and location of your choice.

#### **Risks and discomforts**

There are no known risks associated with this research. Participants may skip any questions they do not wish to answer and may end an interview at any time and for any reason. In addition, the location of the interviews will be based on the participant's preference.

#### **Potential benefits**

There are no known benefits to you that would result from your participation in this research. However, this research may help us to understand how engaging in a curricular learning community influenced the four-year degree completion of community college students in career and technical fields

#### **Protection of confidentiality**

I will do everything I can to protect your privacy. Your identity will not be revealed in any publication resulting from this study. All audio files, after being immediately transferred to my password-secured personal laptop (which, when not on my person, is kept locked at my residence), will be deleted from the recording device. The audio files will be labeled with the date of the interview and a pseudonym. I will create a master key document identifying participants by name and linking participant names to pseudonyms. This document will be kept in a file cabinet in my home, separate from my laptop and the audio recordings. Once all interviews have occurred and audio recordings have been transferred to my laptop and labeled, I will destroy the master key document so that data cannot be linked to participants' identifying information.

#### **Voluntary participation**

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way

should you decide not to participate or to withdraw from this study.

### **Contact information**

If you have any questions or concerns about this study or if any problems arise, please contact Denise Carr at Pellissippi State Community College at (865) 539-7058. If you have any questions or concerns about your rights as a research participant, please contact the Institutional Review Board by phone at (512) 471-8871 or email at [orsc@uts.cc.utexas.edu](mailto:orsc@uts.cc.utexas.edu).

### **Consent**

**I have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in this study.**

Participant's signature \_\_\_\_\_ Date: \_\_\_\_\_

## **Appendix D: Interview Protocol**

### **I. Personal/K-12 Academic Background**

- Parents educational background
- Tell me about your K-12 experience. Which schools? High school GPA?
- What were your college/career intentions upon graduating from high school?

### **II. College Background**

- Was PSCC your first college experience?
- Tell me about your decision to enroll in PSCC. Did you consider other schools?
- What were your expectations regarding your academic performance as a college student at PSCC? Confident? Uncertain?

### **III. The AHEAD Learning Community**

- Tell me about your decision to enroll in the AHEAD program. Did you consider a traditional day program or other evening programs at other schools?
- What were the most influential factors involved in your decision to enroll in the AHEAD program?
- Once enrolled in AHEAD, what factors were most appealing about the program?
- At any time during the program, did you consider dropping out? If so, why? If you considered dropping out, what factors influenced your decision to stay enrolled?
- What barriers did you have to navigate to enroll in college? Work? Family?

### **IV. Student Engagement**

- Do you feel that participating in the AHEAD learning community helped you to engage academically? If so, how?
- Do you feel that participating in the AHEAD learning community helped you to engage socially? If so, how?
- Do you feel that participating in the AHEAD learning community helped you to engage with faculty? If so, how?
- To what degree did being engaged academically, socially, and with faculty influence your two-year degree completion?

## **V. Baccalaureate Degree Attainment**

- When did you decide to pursue a baccalaureate degree?
- What characteristics were you looking for in a four-year institution?
- How would you characterize the transition to a four-year institution?
- Did participating in the AHEAD learning community influence your decision to pursue a baccalaureate degree? If so, what specific attributes of the AHEAD learning community influenced your decision? In what ways did AHEAD influence your decision?
- Did anyone else from your AHEAD learning community group pursue a baccalaureate degree? If so, did they attend the same institution as you? What influence, if any, did that have on your decision?
- Were there any specific doubts/concerns/obstacles that your participating in the AHEAD program helped you overcome? If so, how did that influence your decision to obtain a baccalaureate degree?
- To what degree did being engaged academically, socially, and with faculty influence your baccalaureate degree completion?

- If you had to name the top two or three factors that influenced your decision to pursue your baccalaureate degree, what would those be?

Is there anything else about your experience in the AHEAD learning community you would like to share today?

## **Appendix E: Sample AHEAD Schedule**

### **MANAGEMENT AHEAD PROGRAM**

#### **SPRING**

#### **SUMMER**

ACC 2000 PBC	05/17/11 - 07/19/11	Tuesday	5:45-8:45
MGT 2100 PBC	05/19/11 - 06/16/11	Thursday	5:45-9:45
MGT 2050 PBC	06/23/11 - 07/21/11	Thursday	5:45-9:45
LAW 2300 PBC	07/26/11 - 08/16/11	Tuesday	5:45-9:45
HUM Elective	07/28/11 - 08/19/11	Thursday	5:45-9:45

#### **FALL**

ECN 2010 PBC	08/30 /11 - 11/08/11	Tuesday	5:45-8:45
ENGL2950 PBC	09/01/11- 09/29/11	Thursday	5:45-9:45
MGT 2170 PBC	10/06/11- 11/10/11	Thursday	5:45-9:45
FIN 2000 PBC	11/15/11 - 12/13/11	Tuesday	5:45-9:45
MGT 2471 P98	TBA		

#### **SPRING**

MGT 2240 PBC	01/17/12 - 03/27/12	Tuesday	5:45-8:45
MATH1530 PBC	01/12/12 - 03/22/12	Thursday	5:45-8:45
MGT 2160 PBC	04/03/12 - 05/01/12	Tuesday	5:45-9:45
MGT 2180 PBC	03/29/12 - 04/26/12	Thursday	5:45-9:45

## Appendix F: AHEAD Graduate Survey

### AHEAD SURVEY SPRING 2011

1. How did you hear about the AHEAD program?

Admissions \_\_\_\_\_ Counselor \_\_\_\_\_ Other \_\_\_\_\_  
Brochure \_\_\_\_\_ PSTCC Web site \_\_\_\_\_

2. Why did you choose to pursue the AHEAD program?

Fast-paced \_\_\_\_\_ Night program \_\_\_\_\_  
Cohort model \_\_\_\_\_ Other \_\_\_\_\_

3. Do you recommend more online courses in the program? Yes \_\_\_\_\_ No \_\_\_\_\_

4. Was the amount of in-class instruction adequate? Yes \_\_\_\_\_ No \_\_\_\_\_

5. Was 16 months a reasonable timeframe to complete the program? Yes \_\_\_\_\_  
No \_\_\_\_\_

6. Would you recommend the program to others? Yes \_\_\_\_\_ No \_\_\_\_\_

7. What is the most positive characteristic of the program?

8. When you consider your experience with the program, what do you recommend to improve the program?

Additional comments:



## Appendix G: Pellissippi State Community College Internal Research Board Approval



PELLISSIPPI STATE  
COMMUNITY COLLEGE

INSTITUTIONAL EFFECTIVENESS, ASSESSMENT AND PLANNING

September 28, 2015

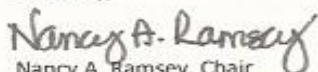
Denise Carr  
10311 Nora's Path Lane  
Knoxville, TN 37932

Dear Ms. Carr,

The Institutional Review Board at Pellissippi State Community College has received your application for permission to conduct your doctoral study, *How Engagement in Curricular Learning Communities Influences the Baccalaureate Degree Attainment of Community College Students in Career and Technical Studies*. The Board believes the design of your study meets the Federal requirements for protection of human participants. Your application has received approval as required by PSCC Policy 08:02:01 Conducting Research at Pellissippi State.

Any significant changes in the research project must be reviewed by the IRB at Pellissippi State. Please submit any changes in writing. The College looks forward to seeing the results of the study.

Sincerely,

  
Nancy A. Ramsey, Chair  
Institutional Review Board

## Appendix H: University of Texas at Austin Internal Research Board Approval



OFFICE OF RESEARCH SUPPORT

THE UNIVERSITY OF TEXAS AT AUSTIN

P.O. Box 7426, Austin, Texas 78713 · Mail Code A3200  
(512) 471-8871 · FAX (512) 471-8873

FWA # 00002030

Date: 11/02/15

PI: Denise Michele Carr

Dept: Educational Administration

Title: How Engagement in Curricular Learning Communities  
Influences the Baccalaureate Degree Attainment  
of Career and Technical Students

Re: IRB Expedited Approval for Protocol Number 2015-09-0140

Dear Denise Michele Carr:

In accordance with the Federal Regulations the Institutional Review Board (IRB) reviewed the above referenced research study and found it met the requirements for approval under the Expedited category noted below for the following period of time: 10/30/2015 to 10/29/2016 . *Expires 12 a.m. [midnight] of this date.* If the research will be conducted at more than one site, you may initiate research at any site from which you have a letter granting you permission to conduct the research. You should retain a copy of the letter in your files.

Expedited category of approval:

- ☐ 1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met. (a) Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review). (b) Research on medical devices for which (i) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.
- ☐ 2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows: (a) from healthy, non-pregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or (b) from other adults and children<sup>2</sup>, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently

- (b) Deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction;
- (c) Permanent teeth if routine patient care indicates a need for extraction.
- (d) Excreta and external secretions (including sweat).
- (e) Uncannulated saliva collected either in an un-stimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue.
- (f) Placenta removed at delivery.
- (g) Amniotic fluid obtained at the time of rupture of the membrane prior to or during labor.
- (h) Supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques.
- (i) Mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth washings.
- (j) Sputum collected after saline mist nebulization.

- ☐ 4) Collection of data through non-invasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications).

Examples:

- (a) Physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy.
- (b) Weighing or testing sensory acuity.
- (c) Magnetic resonance imaging.
- (d) Electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, and echocardiography.
- (e) Moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.

- ☐ 5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis).  
Note: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.

- ☒ 6) Collection of data from voice, video, digital, or image recordings made for research purposes.

- ☐ 7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Note: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.

- ☒ Use the attached approved informed consent document(s).

- ☐ You have been granted a Waiver of Documentation of Consent according to 45 CFR 46.117 and/or 21 CFR 56.109(c)(1).



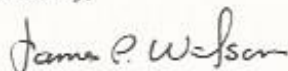
☐ You have been granted a Waiver of Informed Consent according to 45 CFR 46.116(d).

**Responsibilities of the Principal Investigator:**

1. Report immediately to the IRB any unanticipated problems.
2. Submit for review and approval by the IRB all modifications to the protocol or consent form(s). Ensure the proposed changes in the approved research are not applied without prior IRB review and approval, except when necessary to eliminate apparent immediate hazards to the subject. Changes in approved research implemented without IRB review and approval initiated to eliminate apparent immediate hazards to the subject must be promptly reported to the IRB, and will be reviewed under the unanticipated problems policy to determine whether the change was consistent with ensuring the subjects continued welfare.
3. Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to participate.
4. Ensure that only persons formally approved by the IRB enroll subjects.
5. Use only a currently approved consent form, if applicable.  
Note: Approval periods are for 12 months or less.
6. Protect the confidentiality of all persons and personally identifiable data, and train your staff and collaborators on policies and procedures for ensuring the privacy and confidentiality of subjects and their information.
7. Submit a Continuing Review Application for continuing review by the IRB. Federal regulations require IRB review of on-going projects no less than once a year a reminder letter will be sent to you two months before your expiration date. If a reminder is not received from Office of Research Support (ORS) about your upcoming continuing review, it is still the primary responsibility of the Principal Investigator not to conduct research activities on or after the expiration date. The Continuing Review Application must be submitted, reviewed and approved, before the expiration date.
8. Upon completion of the research study, a Closure Report must be submitted to the ORS.
9. Include the IRB study number on all future correspondence relating to this protocol.

If you have any questions contact the ORS by phone at (512) 471-8871 or via e-mail at [orsc@uts.cc.utexas.edu](mailto:orsc@uts.cc.utexas.edu).

Sincerely,



James Wilson, Ph.D.  
Institutional Review Board Chair



OFFICE OF RESEARCH SUPPORT

THE UNIVERSITY OF TEXAS AT AUSTIN

P.O. Box 7426, Austin, Texas 78713 · Mail Code A3200  
(512) 471-8871 · FAX (512) 471-8873

FWA # 00002030

Date: 11/20/15

PI: Denise Michele Carr

Dept: Educational Administration

Title: How Engagement in Curricular Learning Communities  
Influences the Baccalaureate Degree Attainment  
of Career and Technical Students

Re: IRB Amendment Approval for Protocol Number 2015-09-0140

Dear Denise Michele Carr:

In accordance with the Federal Regulations for review of research studies, the Institutional Review Board (IRB) reviewed your requested amendment to the above referenced protocol and found that it met the requirements for approval.

Approval for your study expires on 10/29/2016, *Expires 12 a.m. [midnight] of this date.*

The following requested changes were approved:

Update protocol to indicate entrance into 'Treatise Study.'

- ☒ Continue to use the original approved consent form(s).
- ☐ Use the attached approved informed consent document(s).
- ☐ You have been granted a Waiver of Documentation of Consent according to 45 CFR 46.117 and/or 21 CFR 56.109(c)(1).
- ☐ You have been granted a Waiver of Informed Consent according to 45 CFR 46.116(d).

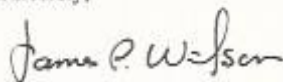
**Responsibilities of the Principal Investigator:**

1. Report immediately to the IRB any unanticipated problems.

2. Submit for review and approval by the IRB all modifications to the protocol or consent form(s). Ensure the proposed changes in the approved research are not applied without prior IRB review and approval, except when necessary to eliminate apparent immediate hazards to the subject. Changes in approved research implemented without IRB review and approval initiated to eliminate apparent immediate hazards to the subject must be promptly reported to the IRB, and will be reviewed under the unanticipated problems policy to determine whether the change was consistent with ensuring the subjects continued welfare.
3. Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to participate.
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Note: Approval periods are for 12 months or less.
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7. Submit a Continuing Review Application for continuing review by the IRB. Federal regulations require IRB review of on-going projects no less than once a year a reminder letter will be sent to you two months before your expiration date. If a reminder is not received from Office of Research Support (ORS) about your upcoming continuing review, it is still the primary responsibility of the Principal Investigator not to conduct research activities on or after the expiration date. The Continuing Review Application must be submitted, reviewed and approved, before the expiration date.
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If you have any questions contact the ORS by phone at (512) 471-8871 or via email at [orsc@uts.cc.utexas.edu](mailto:orsc@uts.cc.utexas.edu).

Sincerely,



James Wilson, Ph.D.  
Institutional Review Board Chair

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